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THE  
SOUTHERN CULTIVATOR,

A MONTHLY JOURNAL,

Devoted to the Interests of Southern Agriculture,

AND

DESIGNED TO IMPROVE BOTH THE SOIL AND THE MIND;

TO

ELEVATE THE CHARACTER OF THE TILLERS OF THE SOIL,

AND TO

INTRODUCE A MORE ENLIGHTENED SYSTEM OF AGRICULTURE.

---

ILLUSTRATED WITH NUMEROUS ELEGANT ENGRAVINGS.

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DANIEL LEE, M. D. AND D. REDMOND, EDITORS.

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1857.

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# SOUTHERN CULTIVATOR.



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See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH---(JANUARY.)

#### THE PLANTATION.

We can add little to our previous hints under this head most of which we are constrained to repeat for the benefit of new readers:

*Plowing* must now be pushed vigorously and steadily wherever the ground is not too wet. Turn well under all vegetable matter, that it may decompose, and yield nutriment to the coming crops of *Corn*, *Cotton*, &c. *Plow deep*, and if you have no regular subsoil plow, let your turning plow be followed in the same furrow, by a bull tongue, or broad coultter, drawn by a stout team. This will loosen up the subsoil, and bring into cultivation a portion of your land which heretofore has never been made available. The miserable system of scratching to the depth of three or four inches, must be abandoned. No Planter in the South should pretend to plant a crop of *Corn* or *Cotton* in less than 10 inches of mellow and well manured soil. Try *deep plowing* one year, and you will need no urging hereafter.

*Manure* should now be hauled out, distributed over the ground and turned deeply under. Scatter it evenly, so that all the plants may be fed.

Spread all trash, weeds, corn and cotton stalks, &c. over your land and turn them under with the plow. Haul leaf mould from the hollows of the woods, and compost it with barn yard manure, lime and ashes, before you spread it on your fields.

Fill up gullies with logs, brush, &c., and run ditches horizontally along your hill sides to prevent washing. *Deep plowing* will also be found of great benefit on hill sides subject to wash. In all cases plow horizontally, *i. e.*, across instead of up and down the hill sides.

Repair old buildings—erect new ones—look over and repair your farm implements—take good care of your stock, and keep all work animals in good condition for the hard labor they will have to accomplish the coming season.

A new year, and new era in Southern Agriculture and Horticulture are now dawning upon us. We have the finest climate, and some of the richest lands under the sun—to say nothing of that system of domestic servitude which supplies us with the best and most easily controlled field laborers in the universe, and enables us to produce in vast quantities one of the earth's greatest staples, Cotton!—a crop which controls the destiny of nations. We should then, endeavor fully to appreciate our high position and manifold advantages, and let us this year, commence our planting operations with the determination to make larger crops than heretofore—to practice a more thorough system of plantation and domestic economy—to avail ourselves of all the lights of agricultural science—to improve our old worn out fields—to keep out of debt—and by our earnest and persevering efforts, to elevate the vocation of the Southern Planter to its rightful position, at the head of all other professions.

Nor, while devoting all proper energy and attention to the urgent and laborious duties of the plantation, must we forget the still higher claims of home and its surroundings. Let us encircle this choicest and dearest spot of earth, with everything that can make it lovely and attractive. Plant all the choicest fruits of our sunny clime, in such abundance that not only your own household and servants but the pent up inhabitants of neighboring cities shall be fully and cheaply supplied. Scatter everywhere about your dwelling sweet and beautiful flowers, to delight the eye and the senses, and bind the hearts of your children indissolubly to the dear old homestead. Fill your Book shelves and centre tables, not only with the literature of Agriculture, but with all that may quicken the imagination and fancy; refine and elevate the sentiments, and improve the heart; and thus let the wealth won by your enterprise and skill, minister to the true enjoyment of life.

#### THE VEGETABLE GARDEN.

Sow early varieties of English *Peas* during the first fortnight in January, and continue to sow a succession every week during the spring and early summer. Hoc and earth them up in dry, warm weather, and set a row of sticks to support the vines as soon as they require it.

Where English *Peas* are wanted in large quantities for market, it will be found too laborious a task to stick them.

For that purpose they may be planted in *single* rows 2½ to 3 feet apart, and left to ramble on the ground. Amongst the scores of varieties of English Peas the *Extra Early* is one of the best, yielding a fair crop of good sized pods. *Dwarf Imperial*, if planted at the same time, will succeed them, and *Prussian Blue* will come at last, and stand the heat better than most other Peas.

*Cabbages, Lettuce, Radishes, Salsafy, Spinage, Parsnips, Beet, &c.*, may now be sown on ground properly prepared. Choose a warm exposure—spade, manure, and pulverise your beds well, and do not plant your seed too deep.

If you have Cabbage plants saved during autumn in a pit, recollect to give them full air, whenever the weather proves mild, that they may not become too weak. By doing this, you will have plants ready for transplanting during the month of February. Turnips should now be sowed for spring use. As they will stand a good deal of cold with a slight protection, the bed should be covered slightly with pine tops. The Flat white Dutch and Red Topped Dutch are the best varieties for early use. Colza or Rape should be sown now, and if the season proves favorable you will have a supply of excellent greens for table in the beginning of March.

If *Onions* (black seed), have not been sown yet, it should be done at once.

*Irish Potatoes* may now be planted for an early crop. Plant the sets 8 or 10 inches apart, on coarse litter, long manure or straw, in the bottom of deep trenches, 3 feet apart. Put a handful of manure on each set, and cover it with 5 or 6 inches of earth. Haul the earth well about the stems as they advance in growth, but do not cover the tops with dirt.

Prepare all your garden implements for use, this month; and get your ground spaded or plowed thoroughly, turning deeply under all the manure or vegetable matter that you can obtain. Be sure never to stir the ground or plant any seed when the soil is wet.

*Hot Beds* should be prepared the latter part of this month, in order that you may have a good supply of Cucumbers, Cabbage, Tomato and other plants for spring operations.

#### THE ORCHARD.

Plant out, *immediately*, all the finest varieties of *Apples, Pears, Peaches, Plums, Apricots, Nectarines, Quinces, Pomegranates, Figs, Grapes, &c.*, giving the preference, in all cases, to trees and vines raised in the South. One tree set out now, is worth three set out a month hence. (See directions for planting trees in previous numbers.)

*Strawberry Beds* may be planted any time before March, but the sooner the better. (See directions in previous numbers, last volume.)

*Orchards* that have been allowed to grow up in grass and broomsedge during the fall and summer, should be cross plowed between the rows, leaving a space as far as the branches extend to be stirred up with the grubbing hoe. Be careful not to injure the roots by this working—dig in some well rotted manure, (muck, lime and ashes)—cut away all suckers, and leave a space around the tree open and mellow. As soon as warm weather approaches, this

space may be mulched with saw-dust, pine straw, forest leaves, long manure, or any substance that will retain moisture.

If your peach trees are suffering from the *borer*, now is a good time to apply scalding water. Bearing trees will require but little pruning, only taking out limbs, which are crowded or rubbing each other. Young trees should now be pruned, in order to give them a proper shape.

#### MAKING FORAGE AND WINTERING STOCK.

DURING the winter months, when the husbandman sees his cattle and other animals pinched for food, he will be less unwilling than at other seasons of the year to listen to a few suggestions designed to aid him in the art of making forage, and in wintering his stock. Information on this subject is not so general nor so thorough as the best interests of our readers demand. Sixty years ago Georgia exported considerable beef and other meat; and now her enterprising cultivators might, with the advantage of numerous railroads, and lines of ocean steamers, greatly extend the commercial interests of the State based on this department of productive industry. It is truly an inviting field for the employment of agricultural labor, skill and capital; but all the processes appertaining to stock husbandry have to be studied as well as practiced before their defects and advantages can be weighed in an even balance.

Our correspondent, "T. C. C.," of Milldale, Miss., says he "can't help pulling fodder," although he regards it an unprofitable business. Others, doubtless experience difficulties similar to those which he has stated on page 309 in our last volume, October number. Among other interesting statements, may be found the following:

"I have tried cutting up corn and shocking it as I used to do at the North, but I cannot cure it one time in ten, as about that time we have a shower every day, and some times three or four of them. Provided we could cure stalk fodder it would not answer to feed horses and mules, as they could pick only a few blades off the front stalks in the rack and no more."

Our friend of Mill Dale will take no exceptions, we trust, if we remark that racks for holding hay and other forage for horses, are now discarded by all good managers who keep these animals. A tight box large enough to hold any forage that may be given them is far better, as it saves from getting under their feet the leaves of clover, pea vines, dry corn blades, or other fine and nutritious feed. In keeping domestic animals, the first lesson to be learned is economy in not permitting anything of value to be wasted, or turned to a less account than it is capable of. Not to study and practise economy in the management of stock is to set at naught the elementary principles of good husbandry.

Rain every day, and sometimes two or three times in a day, would be as injurious to grass when being made into hay as to corn cut and put into shocks for making fodder. The writer has had not a little experience in curing most of the green plants used at the North for wintering neat cattle and horses; and he now has a frame barn over forty feet square on the ground, well filled with for-

age made from corn grown in Georgia. Had it not been for the ravages of the "army worm," early frost, and drouth, his hay crops, grown the first year of his Southern farming on poor land near Athens, would have filled two barns of a liberal size for the State of New York. Poor land far from the sea coast, requires not only domestic manure in abundance, but that it be produced at the smallest possible cost. Now, if meat, the flesh of young mules and horses, and the wool and mutton of sheep will pay for their growth on the farm, it is clear that an indefinite quantity of stable manure may be had for nothing.

Fixing our mind steadily on the great purpose of ascertaining the best way to bring all the old fields of the planting States into fruitfulness and profit, we find the want of skill in the care of stock during the winter months to be the most serious impediment. Where millions of cattle, horses, mules and sheep ought to be kept in a growing, or in a fattening condition, are seen animals badly fed, often dying before grass comes in spring, and almost universally wasting their droppings—the loss of which makes the soil poorer for their subsistence thereon. To remove these defects in our present stock husbandry is an object of the first importance; for it must precede the general improvement of the tilled lands of the South. We cannot afford to purchase foreign guano, or other fertilizers for that purpose. Science and experience alike teaches us that the subsoil and the atmosphere will yield the food of agricultural plants in sufficient quantity to enrich the surface soil. Nor does the consumption of these plants by animals materially impair their value for making either rich mould or minerals at and near the surface of the ground for the nourishment of growing crops. If, however, the excrements of our animals, formed of ingredients taken from the soil, be not restored to it again, the land so treated must lose some of its fertility and value every year. But as plants can be made to draw largely on other sources than the surface soil for their aliments, to return to the latter all the manure that may be made from said plants is a sure process for increasing both the fruitfulness and value of arated fields. This is entirely practicable without the intervention of domesticated animals; but less profitable to one who knows how to make money by stock growing. For this purpose, fodder pulling is too expensive; and, fortunately, it is wholly unnecessary. Where one has hundreds of acres of corn, he can afford to lose a vast amount of nourishment for stock, by leaving four-fifths of it in his fields to be gathered in part by his cattle in winter. But so much alimentary matter as decays in his fields unconsumed, involves a loss, provided the flesh of mules, and neat stock is worth more than the cost of gathering and feeding to them food already grown. Believing that forage can be produced at a liberal profit from corn, peas and grass, and finding thus far no serious difficulty in curing the plants named, we give our practice for what it may be worth.

To mature the ear or ears on each stalk, we leave all the blades below them, and cut off the stalk just above the ear at fodder-pulling time. At the North this practice is called "topping corn." The stalks and leaves so cut are

set up in small shocks till cured; and they should not take the weather a day longer than is necessary to dry them for the barn or stack. Such is briefly our plan for making good forage from stout corn. If the plants are comparatively small, we cut them at the ground, or below the ears—higher or lower according to the size of stalks. Even large corn stalks if cut and cured at the proper time, contain more than twice the nutritive matter per 100 pounds that is found in corn cobs which are often ground and fed with meal. Our remarks on this point are based on personal experience in feeding a dairy of fifty cows for weeks on known weights of steeped cobs with meal, and steeped cut corn stalks, expressly to learn whether the stalk or the cob was the better alimentary substance. After corn plants are ripe, the elements, rain, dew, sunshine, frost and atmospheric air remove all soluble and volatile ingredients from them much faster than many suppose, if they are permitted to stand out singly in the field. Thus deprived of their nutritive matter, old and weathered stalks are little better than small sticks of wood for feeding cattle. These facts apply to the stems of all forage plants, and indicate the reason why we urge the propriety of cutting and curing all plants of this character, and of housing them, before they part with any of their most valuable ingredients. In short, our system gives us first-rate hay at a cost not exceeding two or three dollars a ton—about the home value, dry weight, of good manure.

We have not as yet erected an apparatus for cutting up and steeping large corn stalks; but if we do not find the new Sugar Cane better than our old favorite maize for feeding stock, we shall endeavor to grow and work up corn to the best possible advantage. Indigenous to this continent, corn is the king of all American plants. If any plant from China can beat it, we shall rejoice thereat, and adopt it for making hay as well as sweetening. In this connection we will state that we have recently seen a fine dairy of thirty cows in the District of Columbia kept almost exclusively on the Chinese Sugar Cane. The forage had been housed some months and the hard stalks were cut up on a block of wood with a hand axe before they were given to the cows. They were eaten so freely, and gave such returns in milk and flesh as prompted the writer to procure sufficient to plant some forty or fifty acres for his own use. As much more may be done with corn plants than is now generally practiced, we are by no means sanguine that any cereal is better for our climate and soil.

If we have got one that is equal to maize in economic value, its introduction will mark a new era in American agriculture. However useful the *sorghum saccharatum* may ultimately prove, it is destined to be seriously damaged by the over-praise of its visionary advocates. There are few trees more valuable than the *Morus Multicaulis*; and yet the enthusiasm of a popular epidemic killed it outright.

Both corn stalks and those of the Chinese Sugar Cane are best cured in shocks standing on their butts, on dry ground. We have made ten acres of pea vine hay the past season, and found more difficulty in the process than we ever had in making hay from broadcast corn. Not to lose the leaves of the vines, we treat them as we do heavy clover in making it into hay—handle as little as possible, and that carefully. It is idle to think of making hay by the hundred tons, which is needed on a farm of three or four hundred acres by putting it when green upon poles, or fences, or on scaffolds in barns or sheds.

It must be cured on the ground where the plants grow, with no needless labor. One who cannot do this, will

find it wise to let his stock pick up most of their living in forests and corn-fields during the winter. They must range far and wide, and drop their manure where their owners will never find it. To avoid this, many farmers at the North make large stacks of corn stalks on their poorest land which being fed out to cattle they leave their dropping near the stacks and where manure is most needed. This arrangement saves all the expense of hauling outdunn in the spring when other work presses hard for the toil of man and beast. To have as little outside hay to the weather as possible, we have seen sixty tons put into a single stack, which when fed was hauled on an ox sled and scattered over the poorest part of the meadow. It is bad economy to make little fodder stacks. If you cannot afford a barn for shelter, do not damage half your fodder by exposing it on the surface of a dozen or more small stacks. Give all your cattle the benefit of at least a good shed to sleep under nights, and have that well covered with dry leaves to keep them warm. Cows should be stabled.

L.

#### HAY MAKING IN THE SOUTH.

*A Brief Essay, read before the "Beech Island Farmers' Club," at the October Meeting.*

*To the Members of the Club:*

GENTLEMEN—As it is expected that each member of this Club shall make a report of some experiment, I take this opportunity to present the following, on Hay Making:

About the first of May, I had a ten acre lot of good river-bottom land plowed up, with double plows, from 8 to 10 inches deep; the land was then well harrowed with a good two-horse iron-tooth harrow, across the plowing, and then rolled with a cast iron two-horse roller, in order to make the surface as smooth as possible. The land was soon covered with crab-grass. In consequence of the hot dry weather, I had almost despaired of realizing a crop; but after the heavy rain which fell about the first of September it revived and grew off rapidly, and continued to improve until the latter part of September, when it was from two to three feet high, at which time I cut it with scythes. The plan I adopted for curing, was, to have what was cut in the morning turned over and stacked up about four or five hours after it was cut, and that part of it that had from 4 to 6 hours sun on it was then put into common size shocks, and remained until the next day about ten o'clock, or until the dew was entirely off, at which time they were again opened and the hay again spread, and remained so until evening, when it was put into shocks again, and remained so until the dew was off the next day, when they were opened and spread as above stated; in the afternoon, such as was sufficiently cured I had packed in the barn.

I measured one acre and obtained from that 7,675 lbs of well cured hay, which I sold for 75 cents per cwt., in Augusta; it was weighed at the City Scales, and at that low price amounted to \$57 56. At \$1 per hundred, the amount would have been \$76 75; at \$1 25 per hundred, \$95 93; and at \$1 50 per hundred, \$115 12. These prices are not unfrequently paid for an article in no way superior. I think there were three or four acres in the lot as good as the one I measured; the balance not more than two-thirds as good. At the rate sold, the whole lot would amount to \$460; and of course still higher at increased rates, as shown above.

I would simply call the attention of the members to the fact that this crop has been made under unfavorable seasons, and if sold at the average price that Northern hay commands in Augusta, which is about \$1 50, it would amount to \$920, or \$92 per acre.

My impression is that two crops may be taken from the

same land by commencing earlier in the season, and there is no crop more profitable with the same amount of labor.

All of which is respectfully submitted.

JONATHAN M. MILLER.

*Goodale, near Augusta, Ga., Oct., 1856.*

#### LEVEL CULTURE—LETTER FROM COL. H. J. CANNON.

EDITORS SOUTHERN CULTIVATOR—Engagements of an unyielding nature have, for some time past, and until very recently, prevented an earlier notice of the many communications received and the numerous articles read by me in relation to the *System* I do so earnestly and ardently advocate, as *agriculturally* suited to this section of country; that is, to run *every row—every furrow*—(and were it practicable, I would say, every *fiol-path—every scratch* made by a plow, in going to or returning from work—and *every rut* made by a wheel, regardless of length, upon a *dead level*. I can truly say:—"Eight yards of uneven ground is three score and ten miles with me"—in this connection at least.

This, I find, has recently very generally been alluded to, as "Col. CANNON's plan of leveling land;" "Col. C.'s system of level rows and culture," &c. This is all wrong. While I am, and ever expect to be, ready, if not fully able, to defend it, no claim of creator is put up by me in regard to it. It is not mine, and for aught I know, it may date back to, and before, the days of Babylon.

In theory, even here, I know it is not new, and, if any credit comes to me, connected with it, it can only be that I have, to some extent, simply performed the humble part of a pioneer, in proving its positive practicability, its easy accomplishment, and its admirable adaptation to the present condition, the urgent, daily increasing, and gulliedly-glaring wants of South Western Tennessee and Northern Mississippi.

"The very head and front of my offending  
Hath this extent, no more"—

Ten years ago I met with the first and only man in this section of country who advocated *level rows and culture*. He was a plain man, and I do not know whether he knew what the horizon was. I am quite certain he did not in this connection. From daily seeing our soil washing away and sometimes even sloughing off from us, (and this predisposition is constantly increasing) my attention was attracted and thought was aroused. It seemed to me, *theoretically* and *philosophically*, that the plan was correct. But, like others are doing now, I doubted, for some time, its practicability. Having determined to try it, and being compelled to leave home I hired this man to "level a field," as he called it, in contradistinction to "circling with a fall." But whether from a doubt of his own theory, or want of success in reducing it to practice, or from what cause I cannot say, I found, upon my return home, he did all of my work with a decided and easily detected *fall*. This, in many instances, was anything but an improvement on the old straight up-and-down hill mode of running the rows. The worst washes I have ever seen, on land, have been met with where a "little fall" was given the rows.

Thrown, thus, upon my own resources, I went to work, determined, fully and fairly, to test this system; to prove its truth or demonstrate its fallacy, and you have the result, so far as my experience at Melton is concerned, in a complete and triumphant success.

With me it is a thing accomplished. Euclid contains



no problem more susceptible of a clear and satisfactory demonstration. I have around me and everywhere about me, the daily, the hourly, the visible, tangible evidence before my eyes at every turn on my plantation, and I no longer enact the part of a doubting "Thomas." Have I not a right to be earnest then?

No ghastly gullies glare upon me—no sickly hues, the sad premonitors of premature decay, arrest my sympathetic vision in any of my arable land. Sometimes, I see a "small break," easily remedied, and, invariably, as soon as the level is applied a fall is detected; frequently of only a few feet in length, but always a fall.

This is no fancy sketch. It is too positively, painfully true, where the remedy is not applied. And where this is done the land is reclaimed, certain.

I have engaged in this cause and write for no empty and ephemeral eclat. In fact, my friends so charge and I frequently feel that I am too much disposed to avoid what is commonly called newspaper notoriety. Of itself, it has never been otherwise than distasteful to me, and the only thing that induces this communication is a sincere and unalloyed desire to do good. I have enjoyed the great advantages of this system myself, and seeing the great need of its general adoption, I freely, though feebly, offer them to others.

Allow me here to say, if anything of interest or profit accrues from what I have said or shall indite in this article the public is certainly indebted to an earlier enjoyment of it, from my having just read in the November number of the *Cultivator*, the very clever, condensed and sensible communication from your clear-headed Florida correspondent, signing himself "B. F. W., Jr."

I want to know him and request his address in full. It reached me just at a time when I was at home enjoying a short respite from other long continued and arduous agricultural labors. It comes to me as a most opportune reminder of a determination I formed of writing once more, and somewhat more in detail, upon level rows and level culture—side hill ditches—the character of the surface and soil of our section of country, and especially in answer to "B. C.," of Texas, to give him my very simple *modus operandi*, in accomplishing the work; thus saving the soil from washing away and enabling me to manure to advantage every slope, with a positive certainty of a retentive and profitable return. He says he is seeking information upon this "*vecata questio*." What I have, he is certainly welcome to. No truth ever came to me in a more unquestioned though, as I think, underrated shape than the one he utters when he says: "There is, in my humble opinion, at least a four-fold greater loss of fertility on broken lands, from this cause alone" (washing away of the soil) "than from the crops grown upon them." He might have made it forty-fold, without any forfeiture of my confidence in his truthfulness. It certainly approximates if it does not overreach, that proportion of difference here.

"B. F. W., Jr.," says: "Col. CANNON's remarks on leveling hilly lands have excited a good deal of attention, and if one may judge from the comments of his brother planters, his doctrines are not altogether *Canon-ical*." I believe, as far as I have seen, I have the weight of authority, as well as numbers, with me, *theoretically* at least, since I have explained, as I did in your August number, that it was the rows and not the surface that must be made upon a level. However, be this as it may, I take pleasure in saying to "B. F. W.," that I have recently been actively officiating as a priest at the agricultural altar, and I regard his articles of faith as so decidedly orthodox; indeed, I may say, as so pleasurably and positively *Canon-ical*, that I will most willingly undertake the easy and agreeable task of shriving him, and promise now to im-

pose a very light penance for whatever of a heretical nature may be found in his creed.

I hope he will allow me to quote his last paragraph. Speaking of having all the "rows perfectly level," he says: "If, instead of leaving this whole matter in the hands of overseers, planters would give to it the thought and personal attention which its importance demands, it would not be difficult for each one to ascertain the plan best adapted to his particular locality."

The single head of that holy man, John the Baptist, had to be taken to Herod "in a charger," and here we have this whole—all-important—life and clothing question presented in a nut-shell, stamped indelibly with the high impress of Truth itself. It comes home to the honest heart of every one, and cannot be added to or taken from without weakening its force.

So, also, when he says: "that a long steep hill side, of stiff clay, or stony land, will require different management from a short gentle slope, having a light porous soil." I am disposed to agree with him, as far as the character of the soil is concerned at least.

I am glad to have the very efficient aid of your practical Uica correspondent, Mr. HARMON, so far as the "level rows" are in question. That is the main point: the deep corner-stone foundation of this system of security to the agriculturist of our particular section, if not of the entire South. And I am truly sorry, in his earnest advocacy of "side hill ditches," he has felt compelled to locate me in the "mountains." During the past summer I felt called upon to define my position *politically*, and Mr. HARMON now forces me to do so *geographically*, by saying in connection with my "mountain" home: "Col. CANNON, I have no doubt, has saved his plantation in the stiff lands of Tennessee, where they grow corn, clover, grass, wheat, &c., where they have, from absolute necessity, a regular rotation of crops; but that does not prove that the planters on the light lands of Mississippi, Alabama, Georgia, and South Carolina can, by his *modus operandi*, (dispensing with hill side ditches) save theirs."

I do not live in the "mountains;" and while I try to grow a little more corn, wheat, clover and grass than any of my very clever neighbors, I must say to him, he has not only located me wrong, but he has, unintentionally done injustice, not to me, but to my section and soil. I live in the important county of Fayette, Tennessee, a few miles west of our county seat, Somerville, (Melton, probably leading to the mistake, being merely the euphonious name I gave my plantation,) and cultivate as light and as loose and as easily washed off soil as any I ever saw in any one of the States named. Cotton, that Ceresus of plants, is king here too, probably to too great an extent. And whether to all of us he has that magic of Midas, his despotism is supreme, and his subjects, though sometimes murmuring, are always loyal. It is due my adopted and prosperous county I should state that her cottons yearly come in successful competition with the best bales in the New Orleans market; and when well handled in the field simply, and well ginned, have never failed to command the very highest price paid during a season. "I speak that I do know and testify of things I have seen."

And I will just whisper, Mr. HARMON, that I have a very clever friend living and cultivating land of the same character and soil in Shelby county, Tenn., Col. JOHN POPE, who has come twice in competition with the world, once in London and once in New York, and each time his cotton has triumphantly borne off the premiums. No! no! just now I would almost as soon think of "taking a tree" as the "mountain" home assigned me. So much as to my geographical position.

Further, as to the character of our soil, surface, &c. Our surface, vegetable mold—of a dark grey, to a choco-

late color—varies in depth from 2 to 6 inches; does not pack or frost up to any great extent. Underneath this we come to a loose, quite porous stratum, from 2 to 5 feet thick, on ordinarily level land, of what is here commonly called "yellow dirt," which by exposure becomes greatly changed in color, and, as is very generally contended, ameliorated and productive. We then encounter the clay proper, if there is any pure clay in this country, of an impacted, but, as I think, of a positively impervious character, greatly varying in depth. This, too, becomes, productive by exposure and admixture.

Our very eminent State Geologist has promised me a visit this winter, when I hope to get a reliable analysis of all three strata.

The general surface of the country is of an undulating, or rolling character; so much so, at times, as to be properly called "broken."

Now, with this description of our county and soil, if Mr. H. finds his differing so much as to call upon him to make side hill ditches as a necessity or as an additional means of security, all I have to say is, that that is a question he and I must each determine for himself, after a full survey of all the points involved. There are doubtless sections of country whose surface and soil may render them necessary, and I was not aware of the extent of my innovations until reminded by Mr. HARMON when he says:

"As to the utility and absolute necessity of hill side ditching there has, so far as I know, been but one opinion up to the time of Col. CANNON's address. And there should be but one still, and with the planters of the cotton growing regions, there is or cannot be but one opinion, and that is, without it the country is ruined." This sounds a little dogmatical, but doubtless Mr. HARMON meant simply to apply it to the "cotton growing regions," thus shutting down upon our very clever corner of Tennessee.

Here, however, with the very slightest emphasis, I will just say, my experience, based upon practice, too, enables me to dispense safely and profitably with the time, labor and land devoted to them, and that I simply regard them as a mere temporary safe-guard against imperfect work in our part of the country.

So much for the ditch itself. Another and much more serious difficulty presents itself to my mind, in the direction Mr. HARMON would and does give them. I understand his plan to be to run his rows level and give his ditches a fall. Within my knowledge the strongest objection ever urged against level rows and level culture, has been the great number of short rows and short, turns it necessarily gives you in filling in between the unequal widths of your level guide rows.

And I freely acknowledge that there is some force in the idea, so far as the quantity of land you can plow in any given length of time is concerned. The two single points I would particularly present as fully answering this objection is, whether the improvement in your lands and the necessary increase in your crops upon even a smaller cultivated area would not well warrant this course of preparation and culture, in comparison with the wretched system of more rapidly running over a larger though constantly wasting and more impoverished surface, with straight rows up and down hill. And next, the great benefit of level culture, not only in retaining the very hasty and sometimes very heavy and washing summer showers, but also of keeping and returning to the soil every leaf, every boll, blade, twig and stalk that grows, and every atom, of manure that is put upon the land. With this system, my poor gullied hill sides are actually becoming my best land and especially so for wheat and clover.

But "*revenons a nos moutons.*" I dislike parenthesis or digression, and do not usually indulge in either. But,

writing rapidly and without revision, you must now excuse me.

Then I ask if Mr. HARMON's plan of *level rows and ditches* with a *fall*, will not almost indefinitely if not unnecessarily, add to this the only forcible argument against the system we both advocate, of level rows and culture, by cutting them in two wherever the ditches do, as they must invariably cross them?

In answer to "B. C.," of Texas, I will say, so far as my plan of work is concerned, that nearly the whole of my plantation was laid off by the old fashioned common rafter level and a plumb.

I would recommend, however, the substitution of the spirit level for the string and plumb. Three pieces of timber, 2 for the two legs and 1 for the cross piece are all that are necessary. The size of the timber or plank as also the length of span to be selected to suit the taste, size and strength of the operator. Twelve feet span and plank 3 by 1 inch are sufficient. I prefer the rafter level to the table system, as being more accurate, though possibly somewhat slower. Each foot of ground passed over and each slight inequality of surface is, by that plan, seen by the person carrying the level, and advantage can be taken of each. Never span a break, no matter how small. When necessary, move the feet back and always let the front foot rest on its edge, on a dead level. No additional water is thus thrown into it, and it only has to dispose of what falls perpendicularly on it. Never fail to level the entire field, and on no account trust anything to the eye. The spirit level is to be attached to the cross piece or the string and plumb to the apex, if you use the plumb. The number of guide rows, to depend on the character of the land and surface; more numerous, as it is most broken. I generally make a hand, with a plow, follow the level so as to make no mistake in the guide rows, then a small chap with sticks or a hoe to mark the row, will answer and save some time and the labor of the mule. One of the best levelers I have ever met with learned under me, and I know him to be as ordinarily gifted, mentally, as one in a hundred. It is painstaking particularly that ensures success in this system, and any man of common sense can accomplish it.

With all the condensation I could hurriedly convey into this hastily written communication, its length admonishes me to stop. The field I have had to go over has been a broad one and I feel and freely own it has had but a feeble gleaner in it. Much has been omitted it might have been proper to have put in. Among other points I was anxious to compare the fall of the streams around us and especially of the Ohio and Mississippi, with the fall we give our corn and cotton rows, and thus show that, making every hydraulic and hydrostatic allowance, the expression I used in my address, that "a fall of 1 inch to 12 feet (the least ever given here—many double it) gives a fall of 36 feet 8 inches to the mile. Over such a fall a thousand rills course along your cotton beds at a speed, compared with which the current of the mighty Mississippi would present the appearance of eddy water," was not too strong, but too painfully true.

For the purpose of directing attention to this point, and without going into details, I will here simply furnish a few facts, which, I have no doubt, will strike many with astonishment, as they did me. The three miles of fall, at Louisville, is but a fraction over 8 feet to the mile, and the Ohio, from Pittsburg to Cairo—including falls at Louisville—has but a fraction over 4 inches to the mile, and from Evanville to Cairo, but a small fraction over 2 inches to the mile, and the entire "mighty Mississippi," from its source to its mouth, has but a little over 6 inches fall per mile, and I have no idea that at Memphis the fall is over 1½ inches, if that. And yet hundreds here are cultivating land, even where they have, so they say, "taken a great deal of pains and put a heap of work on it to save it,"

with that "little fall" of which they speak, ranging from 40 to 100 feet per mile!

Will the Editors be so good as to furnish me the fall of the Merrimack river, if you have it, or can readily procure it for me?

With a sincere desire for the continued and increased success of your able journal, and an ardent hope that a new year may inaugurate a firm purpose on the part of planters to go to work and determine this all-important question, each for himself, I remain,

Yours respectfully,

H. J. CANNON.

Melton, (Sommerville P. O.) Tenn., Nov., 1856.

#### CHINESE SUGAR CANE--NORTH AND SOUTH.

EDITORS SOUTHERN CULTIVATOR—There seems to be considerable variation in the samples of stalk and seed exhibited by different growers of the Chinese Sugar Cane. At the late National Fair, specimens shown by PRINCE & Co., of Flushing, Long Island, and others whose names I do not now recollect, as well as those exhibited in some Seed Stores of Philadelphia, differed widely from each other and still more widely from that which I obtained from you under the same name. The stalk of the Northern samples ranges from 10 to 12 and even 14 feet in height, while mine rarely exceed 8 or 9 feet. The diameters vary also from the largest size corn-stalk (say 2 inches or more) to not more than three quarters of an inch in some samples. Theirs has a rind much like corn—thin and comparatively soft and yielding. They differ in the structure of the cellular tissue also—approximating more to the pith of the corn stalk than to the firm, hard cell of the true Sugar Cane. Their pith is but little more saccharine than corn stalks, while ours is so sweet as to rival the true cane. I notice also in some of these samples a disposition to throw down rootlets from the lower joints into the earth like our corn, which I have never noticed in the plant I grow.

In the seed, also, I find marked differences. The color varies from reddish brown to black in the chaff, and the inner envelope is lighter in its hue, while the size in different samples varies from half to double that to which I am accustomed to see it attain. The seed is placed much more compactly in the head than mine.

These differences are probably dependent upon the admixture of pollen from other varieties; perhaps from the Dourah or Broom Corn. It is possible they may be distinct species, though it is scarcely, I think, probable.

Some of the Seedsmen, to whom I refer, supply field and garden seeds largely to the South, and will doubtless disseminate their Cane seed also. I draw the attention of your readers to the subject, that they may be on their guard in purchasing this seed for the production of syrup. Disappointment must necessarily await those who shall cultivate this tall corn stalk cane for the saccharine juice.

Many of the Northern farmers have grown crops from such seed as I refer to for *proven*, and so far as I can learn, speak of it in the highest terms of praise. It is attracting general attention as a forage crop, and will be very largely planted the coming season for that purpose. Valuable as the Northern variety doubtless is in this respect, it will not answer for syrup. R. BATTEY.

Rome, Ga., Nov., 1856.

A GOOD HORSE.—According to Abd-el-Kadar a well-bred horse is one which has:

1. Three things long—the ear, the chest and the forearm.
2. Three things short—the bones of the tail, the hind legs and the back.
3. Three things large—the face, the breast, and the croup.

#### HYDRAULIC, OR WATER RAM--REPLY TO Hon. Garnett Andrews.

EDITORS SOUTHERN CULTIVATOR—Your correspondent, Hon. GARNETT ANDREWS, wishes information in relation to this most useful and economical machine, and I am pleased to give him such data to work upon in selecting one as his limited description of the stream, elevation, &c., will permit. As Mr. A. has not given sufficient particulars for me to base the true calculations upon, I give him the following rule, which will enable him to make nearly an accurate estimate of the amount of water he may expect to receive at his door, viz:

First ascertain the quantity of water flowing per minute or hour from the dam or head, as nearly as can be done. This, with a ten feet fall, will elevate one-seventh part of the volume fifty feet, or one fourteenth part of one hundred feet high, and carry it to the distance of 250 to 300 yards. A stream furnishing less than 3 or 4 quarts per minute would not be worth the expense of ram, &c., for his elevation. The greater the length of pipe, the more friction to be overcome—the larger should be the discharge pipe. The greater the elevation or pressure, the more strength is required for each pipe.

For rams and more accurate information upon the subject, write to Messrs. W. & B. DOUGLASS, Middletown, Conn., who can furnish the proper size for Mr. A.'s stream. Very respectfully, R. B. N.

Huntsville, Ala., Dec., 1856.

#### A SOUTHERN DAIRY--REPLY TO "E. G. P."

EDITORS SOUTHERN CULTIVATOR—Your subscriber, "E. G. P.," in the November number of your truly valuable paper, asks for the best and most economical plan for building a "Southern Dairy" on a large scale, &c., and also "what system of feeding will preserve cows in good condition and abundance of milk?"

I will answer the first by stating that I have a subterranean dairy, twenty-five feet (at the bottom) below the surface of the ground, 8 feet long, 4 feet wide, 7 feet high inside, with a 4 inch flue passing up from the back end of this little apartment, through the earth to the height of 3 feet above its surface. This dairy is situated on the north-western slope of the hill upon which my house stands and entered on the lower side. It was first dug out, and widened at the bottom for the logs, and constructed thus: The room mentioned as being 8 by 4 by 7 is walled up on 3 sides and covered with square hewed red cedar logs nicely fitted together, and the fourth side being open as an entrance, is faced up with the same, and holds the ends of the side logs, as well as the stair case logs, securely. The stairway or sloping entrance is walled up and covered like the room below, and ends upon a landing 6 feet below the surface of the ground. It is here secured from intruders by a latticed door, which admits a current of air in summer to pass down and up through the flue. This landing is protected from rain, &c., by a simple shed roof, and is latticed on the east and west and open on the north, and extends to the ground on the south. It is entered by an ordinary pair of steps.

The cost of the lumber out of which this dairy was built was less than \$30, the work being done by my own servants, under my supervision. Since I built it (1843) we have never had the first pan of sour milk from it, neither have we had from it soft butter to put upon our table. Fruit, meats and fish keep sweet until consumed by the family. It not only keeps everything put into it, at a low temperature in summer, but prevents freezing in winter. I do not hesitate to say that it is the most useful dairy I have seen, and I have examined many in other States. As "E. G. P." wishes one on a large scale, I would advise him to have one built of cedar, stone or

brick of the proper size and to adopt this plan. Nothing can be better. About once a month a little lime should be spread upon the dirt floor, to prevent unpleasant odor from spoiled milk. No water stands in this dairy, and but rarely any dripping from above. The whole (except shed roof) is covered up with earth to the common level and is well set in blue grass and shaded by fruit trees.

Keeping cows in winter being a subject of practical experience with me, and one which I have taken much pride in, I think I can give your subscriber such information as will enable him and every one else, who follows my plan, to keep fine fat and healthy cows, and to enjoy the comforts of a large yield of rich milk and butter from fall until spring.

My plan is this: To plant early in spring an ample stock of long orange Carrots and Sugar Beets, and in summer a crop of Ruta Bagas, for the number of cows to be kept. In summer my cows run at large, but are fed at night and morning with vegetable parings from the kitchen with a little meal siftings, and such trimmings of vines, grass, &c., as are thrown out of my garden. This treatment continues until frost, when we begin to feed more freely. Cut shucks, hay, fodder or oats, with a little meal or bran on them, are then given as a bulky or filling up food, with boiled vegetable scraps and a little meal, twice a day. When vegetation is entirely killed, we keep our cows in stalls in cold and wet weather, and give each one a half bushel in the morning, and the same at night, of Carrots, Beets, or Ruta Bagas (washed and sliced) boiled with a quart of meal, a little salt, and any vegetable scraps which may be kept about the kitchen. We give also as much shucks, hay, fodder (cut up, with a little meal upon them) as they will eat up readily. We have found this system to pay most liberally for the outlay. We keep two cows, both fine ones (native stock) and manage to keep one in good milking condition when the other is dry. Last winter, for instance, our brag cow had a calf in December. She supplied our family of seven whites and six servants with the richest milk from two to three times a day, and allowed my wife to sell from \$2.75 to \$3.50 worth per week besides. The cost of meal and long food, which I always purchase, did not exceed 12¢ cents a day for this cow, while the roots were not estimated, they being grown upon my own premises.

Such results as the above should not be anticipated in many instances, as there are but few cows which give so much milk. In fact, if made known, the truth would not be received by many of your readers. This system, however, cannot be denied; a sufficiency of long and boiled food, warm and spacious stalls, exercise in good weather, an abundant supply of pure water, are the true secrets of a successful dairyman. After such wintering, more especially when they have had the range of a rye or barley lot, your cows come out in spring fat, sleek, and strong enough to supply themselves with food in summer; and are enabled to escape those fatal diseases "hollow-horn" and "hollow-tail," which by many are called "murrain."

Let "E. G. P." protect his cows from cold and wet weather in winter, and he will find his stabled cows will give more milk and keep in better health, than those running out when fed on double the quantity of food.

The long orange Carrot is most productive here. The Sugar Beet is always cut short by the potato, or "blister bug;" and Ruta Bagas uncertain on account of dry weather.

As for milk pans, I think tin, glass and stone-ware equally good. But neither will do unless scalded and sunned frequently; otherwise they will cause the milk to sour and spoil very rapidly.

Very respectfully,

R. B. N.

Huntsville, Ala., December, 1856.

## POULTRY—BREEDS, MANAGEMENT, &c.

EDITORS SOUTHERN CULTIVATOR—The September number of your valuable paper having failed to my address, I write to say that you will furnish it if possible, as I am not willing to forgo the information to be gleaned from a single number.

I will further improve the present opportunity by asking from yourselves or some of your numerous correspondents a few plain instructions with regard to the rearing and proper management of domestic fowls:

1st. Which breeds of hens lay best at different seasons of the year?

2nd. What description and preparation of food is best calculated to secure fine fowls for the table, and a plentiful supply of fresh eggs?

3rd. What is the very best mode of treatment to be pursued with young chickens and Turkeys?

4th. And above all, how may that arch-enemy of young poultry, the *wart*, be prevented or cured?

5th. I would be glad to know what author you consider most reliable upon the subject just mentioned?

A speedy answer to the foregoing questions will be very thankfully received by

Mrs. M. B. W.

Mobile, Ala., Dec., 1856.

### REPLY OF THE EDITORS.

1st. The best layers, for the winter months, when eggs are most valuable, are the short-legged, plump and well-bred Brahmas or Shanghais. A cross of the Game upon the Shanghai or Brahma, produces a fine table-fowl and a good layer—though the infusion of Game blood renders this cross somewhat quarrelsome.

2nd. *Mixed food* such as corn, (cracked or soaked) wheat screenings, boiled potatoes, rough rice, Indian meal dough, or baked corn bread, (without salt) with a plentiful supply of gravel, old wall plaster or pulverized oyster shells, and an abundance of water, will keep your fowls in the best condition. When put up to *fatten*, they should be fed 3 or 4 times a day with a dry dough made of sweet potatoes and meal, with a plentiful supply of water and pounded charcoal. Give them *no gravel*; keep their coop and feeding trough perfectly clean, and they will be fit for the table in about 10 or 15 days. If kept up longer, they begin to fall away in flesh, and are apt to become unhealthy.

3rd. We have had little experience with Turkeys. Young chickens should be fed on hard boiled egg and meal dough for the first day or two—afterwards, on boiled potatoes, meal dough, wheat screenings, &c. Finely chopped fresh meat is also of great service in feeding young chickens, supplying the place of insects, and making them grow off vigorously.

4th. If the fowl is particularly valuable, apply to the warts a weak solution of caustic, or cut the wart off and bathe the part with strong salt and water. It is a loathsome disease and very difficult to cure, and we generally prefer to kill the fowl at once. As a preventive, keep your poultry-house perfectly clean and well ventilated—mix a little sulphur in the food of your fowls from time to time, and keep a sunken tub full of fresh hard-wood ashes under cover, for them to dust themselves in.

5th. BEMENT and BROWNE are our best American authors; but the most perfect treatise on Poultry in our pos-

session is an English work entitled "*The Poultry Book*," by Rev. W. WINFIELD and G. W. JOHNSON, Esq. It is beautifully illustrated with colored engravings from life. It may be ordered through C. M. SAXTON & Co., of New York. Published in London, by WM. S. ORR & Co. Price, \$5.

[Since writing the above, we have received the new edition of BEMENT's "American Poulterer's Companion." It is greatly enlarged and improved, and in all respects a capital work. See further notice, elsewhere.]

#### ANGORA GOATS.

EDITORS SOUTHERN CULTIVATOR—As this class of domestic animals are occupying some space in the public consideration, and several gentlemen are aiding in giving information the on this very interesting subject, with your permission I will offer the following extract from Dr. ABRAHAM REESE's "*Cyclopedia or Universal Dictionary of Arts, Sciences and Literature*," upon the authority of HASSELG, BUFFON and PENNANT.

"The Angora Goat is, in general, of a beautiful milk-white color, with short legs, and black, spreading, spirally twisted horns. The hair on the whole body is disposed in long pendant spiral ringlets; its ears are pendulous, and the horns of the female instead of divaricating, as in the male, turn backwards, and are much shorter in proportion.

"In its native country this animal is highly valued, and with sufficient reason too, for it is a source of riches to its cultivators; the finest and most costly robes of the highest classes in Turkey, being fabricated of its silky fleece; the price it bears is very great. Most of the European nations have agents for purchasing the valuable wool of this animal, which, the Turks, it is reported, will not allow to be sent out of their Empire in a raw state, but in the form of thread, a multitude of the poorer orders obtaining a livelihood by spinning it. The most considerable manufactory of camblets, fabricated with this wool in Europe, appears to be those of Lisle and Ameins, in France. In order to preserve this beautiful hair in good condition, the goatherds of Angora are peculiarly careful of these flocks, washing and combing them with the greatest diligence; and it is said that change of pasture frequently makes them lose their beauty; this variety being naturally confined to narrow bounds, and produced only in the tracts surrounding the towns of Angora and Bubazar, two places situated in a small District of Asia Minor, not far from Smyrna, and remarkable for producing a peculiar race of sheep, cats and rabbits, as well as goats, with hair of uncommon length and fineness."

In the plates of natural history in the same work may be found the likeness of an Angora male goat that will be found sufficiently resembling those of Mr PETERS in the *Southern Cultivator* to identify the family appearance. I am, myself, perfectly satisfied that Mr. PETERS' Goats are what the world knows as Angora: I can find no such goat as "Cashmere" in any work I have examined. Why not, then, drop this innovation, "Cashmere Goat," and use the proper phrase, "Angora Goat?" and then the ballance of the intelligent world will know what we are talking about.

These goats are, no doubt, very valuable in and about Angora. Whether their Angora gloss will be retained in our climate and pasture must be determined by experiment. Whether the price of labor with us can justify

washing and combing goats as the Angora goatherds do is another interesting problem. And also time and further experience, must settle the question whether the mixture of the Angora with our common goats, will be as valuable as some of our ardent people now think. And lastly, the proper mode of manufacturing the Angora Goat hair to profit, is the crowning result necessary in order to establish the true value of this family of goats in this country.

AGRICOLA.

#### CHINESE SUGAR CANE IN MISSISSIPPI.

EDITORS SOUTHERN CULTIVATOR—As our door operations are suspended in consequence of rain, I will again trouble you with a few inquiries, not on Bees, however, or the production of honey, but on a producer of another one of the sweets of domestic life, to wit: the Chinese Sugar Cane, or Sorgho Sacre.

We received a few seeds late in June last, and although we thought it a humbug, we planted them about the 1st of July, the stalks grew 10 to 14 feet high, matured to the very top, yielding a fine crop of seed, which were duly taken care of, more for the novelty of the thing than any thing else. But opportunely, Mr. R. PETERS has given us the results of his experiments, which proves that there is money in it, and in order to test the matter fairly, I wish to know the cost of Mr. PETERS' Mill, also the number of kettles necessary. I shall plant one to two acres of the Cane next spring. Any information relative to its management and culture will be thankfully received. Many thanks to Messrs. LaTaste and F. T. for their responses to my inquiries on Bees; I shall profit by their advice.

A. T. SHERRILL.

Charleston, Miss., Dec., 1856.

REMARKS.—The iron work of the Mill used by Mr. PETERS cost \$45, in Atlanta, Ga. The wood work can be made cheaply by any good negro carpenter. You will find the information respecting kettles, &c., in the pamphlet which we sent you per mail.—Eds.

#### FODDER PLANTS.

EDITORS SOUTHERN CULTIVATOR—"W. H. R.," of Madison county, asks for something from which he can make fodder and not interfere with cotton picking. Having tried many things, so as to dispense with fodder pulling on account of the labor, as well as the loss to corn, it may be that I am able to aid him.

Millet grass, seed usually for sale by DANIEL SWETT, in Vicksburg if sown about the 10th or 15th of April, on good land, well plowed and harrowed, then harrowed in, will be fit to cut when first the heads begin to change color, say the 20th July to 1st August; do not delay cutting for any seed to ripen, save a part of field for seed. On the rich land in Tennessee I have known  $1\frac{1}{2}$  to 2 bushels sown per acre. I sow 1 bushel on good land, and have cut fully 2 ton per acre. The richer the land the more seed is required to make the stalk small and less woody.

The Guinea grass you call, such as I saw at Col. F. PETERS, and at the Beech Island Farmers' Club, planted about 3 by 2 and cultivated the first year, on rich land has made, the second year, 6,000 lbs. of hay, weighed. It is preferred by horses to fodder.

The Pea sown in drills, say 15th of March, worked well, will be fit to cut with a sharp "briar hook" (a short stiff scythe blade) when in bloom and a few  $\frac{1}{2}$  grown peas are formed. Make a rail pen and floor it; put in about 2 feet of vines on a dry, clear day; then a layer of rail, and another layer of vines and so on; cover with boards to cut.



clude rain; as they wilt and settle down, there is air enough to cure. No better food is needed.

Egyptian Millet, step-dropped in  $3\frac{1}{2}$  feet rows (rich land) 10 to 15 seed 2 feet apart, will bear several cuttings, and when you can spare the time.

Bermuda Grass, planted on a rich, rather moist low ground and kept rich, will give full 2 tons of hay per acre. It has given more on rich land.

Clover can be grown in Madison county; sow 1 bushel to 8 or 10 acres, with  $\frac{1}{2}$  bushel of oats, say in September or October, in a cotton field—the picking of cotton will cover the seed. I have made 2 cuttings a year.

I have now for planting, Muticole Rye, Clover, Blue, Orchard, Timothy and Red Top or Herds, Stanford's Wild Oat and Rescue Grasses. Intending to test all, but mostly as grazing grasses.

By the way, I forgot Gama grass. I brought it here in 1834, not knowing it was indigenous and pressed it forward until the demand for cotton land encroached on my Gama patch. I have watched it for days and weeks, and can safely say that it grew here 1 to  $1\frac{1}{2}$  inches per day, and was cut three or four times per year, yielding a good feed. Some aver it is coarse, but not too much so for stock to destroy it; if permitted to run on it they keep it eaten down to the earth. I admit, like too many others, I run after new things, for I do not see what we can have to desire over and above the articles I now name as forage plants.

The Patent Office sent me, years ago, a few seed of the Muticole Rye; it was sown too late to make any grain, and from the immense quantity of grass I have been induced to order a bushel, from PITKIN & BROTHERS, in Louisville, Ky., price \$1.75, with a view of testing it fully on pine land, drilled and on rich land sown broadcast, and to be cut as a forage.

I think we need pasture for winter more than anything else. If we had pastures our hogs would cost nothing but to harden meat as is thought needful, and our work animals and cows would fare better.

The Rescue, with me, (I am very certain I have had it 10 years,) does not make grass enough. I have not had enough growing to test satisfactorily and hope, "by your assistance," to do so the coming year. I say above I have had the Rescue—a friend sent me, from Texas, about 1844 a seed he called a variety of the Musquite. I planted it in a corner of the flower garden and, when absent, a servant cleaned it up; I only got one bunch, those I saved and put away so carefully that I have never seen them since. But I cannot be mistaken in the plant I think. To think I lost so profitable a seed—\$20 per bushel—think of it, Shanghais and Rescue!

Yours truly,

M. W. PHILIPS.

Hinds County, Miss., 1856.

#### CONCRETE BUILDINGS---MR. SAXTON'S Octagon House, its Cost, &c.

D. REDMOND—*Dear Sir:* Yesterday I received the enclosed letter from Mr. SAXON, near Adairsville. I send it to you, thinking it might answer a valuable purpose in connection with my former letter on the subject of concrete. Mr. Saxon's house is very much admired by all who have seen it. It is certainly a striking fact that so large and handsome a house could be built at an expense of \$1100, not including the labor of eight farm negroes, at spare times from the crop.

If you are not wearied with the subject, permit me to add one or two extracts from Lieut. WRIGHT's work on the subject of concrete, in addition to those previously set you:

"In England, concrete, as a substratum, especially on dangerous soils, is fast superseding every other material at the present time. The materials usually employed in

the manufacture of concrete by the English, are hydraulic lime, sand and some other material like coarse gravel, or stone or brick fragments.

"The lime, fresh from the kiln, is first ground to powder, then mingled with the other ingredients, properly proportioned, and the whole well blended in the dry state, in order that the slaking of the lime may be delayed to the last possible moment. When the materials have been thoroughly incorporated, water is added in sufficient quantity to bring the mixture to the consistency of good mortar, and the mass again turned over with the shovel once or twice, with all practicable expedition.

"The foundations of some of the most important structures in England have been built entirely of this kind of concrete, and constructors of that country unite in giving it an excellent character.

"Concrete admits of a great variety of applications. Arches, and indeed entire buildings, have been constructed of this kind of material alone, and it furnishes an easy and cheap means of forming the shafts of columns, the ornamental work connected there with it, and many kinds of artificial stones."

It may interest you to know the cost of a cubic yard of concrete, as used for the foundation of the sea wall at Fort Warren:

Mortar—	Cement, 286.37 lbs.—3 cub. ft. paste,	\$1 28
8.17 cub. ft.	Sand, 674 lbs.—6 1-2 cub. ft. dense,	17
	Gravel, 25.13 cub. ft.....	24
	Making mortar, 0.064	
	Making cement, 0.109	
	Transporting do. 0.051	} 0.06 days.. 31
	Paoding do, 0.031	
	Tools' &c.....	11

Cost pr cub. y'd, concrete foundation, \$2 11

Analysis of cost per cubic yard of common roofing concrete:

Lime, .28 cask, at 70 cents	- - - -	\$0 19
Cement, 180 lbs., at 1-2 cent	- - - -	50
Sand, .54 ton, at 50 cents	- - - -	27
Granite fragments, .57 yard, at 70 cents	- - - -	40
Gravel, .54 ton, at 50 cents	- - - -	27
Making mortar, 138 yard, at 39 cents	- - - -	14 3-4
Making cement, &c.,	- - - -	59

Cost per cubic yard - - - - \$2 76 3-4

The same cement would cost more at Augusta than the above estimate, but this difference would be more than made up by the greater cheapness of the other materials and of slave labor. A smoke-house built and arched with concrete would be inaccessible to vermin, and indestructible by fire. A spring-house built and arched overhead with concrete, would be exceedingly cool in summer. If an estimate of the cost of a neat paling of wood be made, it will be found to exceed the cost of a concrete wall; the latter will be more ornamental and vastly more permanent. The coping should be made of cement concrete.

I will endeavor to obtain from a Mr. ROGERS, of this county, estimates of cost of a very large three-story concrete house, which he has just built, and will send it to you when I obtain it. I am yours, truly,

C. W. HOWARD.

Spring Bank, near Kingston, Ga., Sept., 1856.

Rev. C. W. HOWARD—*Dear Sir:* Your favor of the — ult., requesting a description and estimate of my concrete building, was received, and contents duly noted. Several considerations seem to forbid my answering yours, as I would wish. The pressure of business denies me the privilege of writing by daylight. I have been very careful to item all my moneyed expenses, and to some extent the amount of labor. To collect all the memoranda, and make a faithful exhibit, would require more time than I

can possibly command. I will give you an outline, however, and at a future time, if necessary, give you a full report. The figure of the house I have now in progress is an octagon, of 19 feet to the side, two stories high. First story, 11 feet from floor to ceiling; second, 10 feet. There are four rooms, each, above and below, of an average of 330 square feet. These rooms, from the necessity of the case, are irregular hexagons, all having fire-places in a common centre. Besides these eight rooms, there are eight triangular ones, as per exhibit herewith sent. The chimney occupies the centre, being eight feet square. The roof has 2 1-2 inches rise to the perpendicular foot, and projects 5 1-2 feet on all sides. The roof is of canvass, with three coats of Croton lead and one of sand. There are 22 windows and 19 doors.

I estimate gravel at 5,000 bushels, and rock at the same. I will give you my expenses up to the present time:

Paid laborers at different times and for various purposes,	\$100 00
Paid carpenters	200 00
Cost of roofing, including lumber, canvass, paint, &c.,	150 00
Lumber in the aggregate	175 00
Paid brick masons,	8 00
Paid for brick, (4,600,)	30 00
Contract for plastering	200 00
Carpenters' work on hand,	30 00
Painting yet to be done,	50 00

Total amount of moneyed expense, \$942 00  
This is exclusive of nails and implements used in operating.

The amount of labor done by my own hands, (8 in number,) would probably be worth 8 or \$900. This labor, however was done at times when hands and teams were not essentially needed on the farm. In fact, I have never made a better crop than last year. I will say, covering all contingencies, the house will not exceed \$1,100; and when completed, will be worth \$3000. Had I time, I could give you my plan of operation, and my reasons for it. Like all new projects, were I to build again, I should vary in some things greatly, viz: I should use more lime in proportion to sand and gravel, but less mortar in proportion to rock. The cement should be rich. To obviate the expense, I would then break my stone and beat them into the mortar; compression being an essential item of a strong wall. The foundation should be 0 stone for two feet above the surface of the ground.

Yours, truly, R. C. SAXON.

Pleasant Hill, Ga., Sept., 1856.

#### TO CURE FOOT EVIL---BACON.

EDITORS SOUTHERN CULTIVATOR—I notice the inquiry of "Felix," in the September number, for a "Sovereign Remedy for Foot Evil." I have suffered some loss among my own stock from this disease, and believe, from the trials I have made myself and the results of the experience of others, that the following is a sure remedy, viz: As soon as you discover any lameness in the animal, examine the foot, and you will generally find considerable tenderness, just at the edge of the hoof and hair. Wash the foot well with warm water and soap, dry it, have ready a strong solution of sulphate of copper, (blue stone,) and with a swab, made by tying a rag to a small stick, rub the solution well in, round the edge of the hair, where it appears to be affected; next morning grease it with fresh lard or oil, to stop the action of the blue-stone; at night wash again and apply the solution, and thus continue until the disease is stopped, which seldom requires more than three applications. Then tie a piece of cloth round it, to keep the horse from gnawing his foot, and let him rest until well. If applied in time, this will, I be-

lieve, in most cases, prevent the loss of any portion of the hoof.

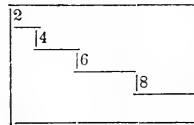
TO PRESERVE BACON.—I noticed, also, the article on "Hogs, Pork and Bacon," which has induced me to give you my experience in preserving Bacon from the skipper. The plan is simple and efficacious. When your meat is fully dry, have some oak bark ground, (the same as prepared by tanners,) and pack the meat away in it, being careful not to let the pieces touch each other. In this manner meat may be kept bright and sweet, free from skippers, for two years, and how much longer I cannot tell, as two years is the extent of my experience. I thought, and also those who eat of it, that the meat was as good as any that we had ever tasted. There is no unpleasant taste imparted to the meat. M.

Dahlonega, Ga., Sept., 1856.

#### BUILDING CEMENT CISTERNS.

EDITORS SOUTHERN CULTIVATOR—As I think the month of October one of the best for cistern building, I hand you the latest improved plan, viz: Let the cistern go down perpendicular to three feet of the bottom, which should then have the shape of the larger end of a hen's egg. The next improvement is in having the cistern twenty or twenty-five feet deep, which enables you the more easily to keep the water cool. The next is not to fill the cistern nearer than eight feet of the top, and the last to cover the cistern with charcoal or saw dust, as they are non-conductors of heat.

Permit me to suggest the use of cement to make troughs for keeping milk cool during the summer. Say for shallow vessels, as butter plates, &c., two inches, then the next four inches, the next six, the next eight, &c., increasing by two inches.



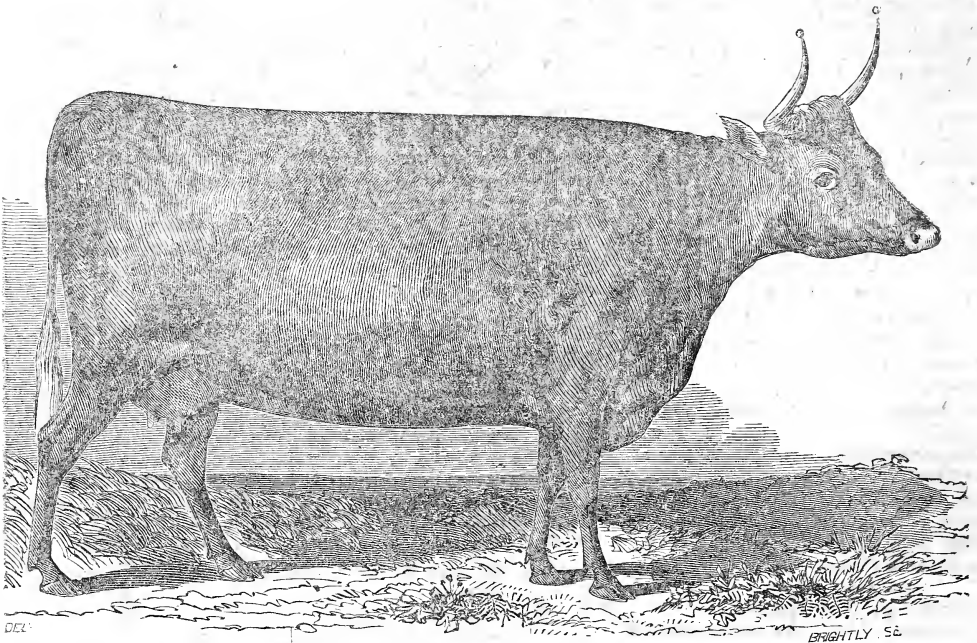
The value of the cemented trough is that, however, long it may be without water it never leaks and then two hours is ample time (if it would dry) to make half a dozen. The same way a bathing establishment can be made say six feet wide and twenty-five yards long, five feet deep for eaching children and ladies to swim, with double canvass around to protect them from the sun, &c., with suitable dress for each sex. Let the South teach all how to swim, without regard to age or sex. It should be done, for I have known the necessity a time or two, and have long been a great advocate of teaching each sex the art of swimming.

Can any one of your numerous readers suggest a more suitable plan than the one I have mentioned? How easily one of these could be attached to the artesian wells of South Alabama or to any one of the many springs in the Southern country. If the water is too cool, convey it some distance in flat troughs through the sun. In winter let there be no water in them lest they are broken (being imperfectly made) during cold weather. The water in cisterns is rarely frozen, being so deep in the earth and covered over carefully.

I was glad to see that Col. R. M. JOHNSTON, of your State, favors the idea of teaching ladies to swim, &c., &c. I am greatly pleased with the Address. G. L. J.

Cumming, Ark., 1855.

Our Government lands cost \$1 an acre on an average, and champagne \$2 a bottle. How many a man dies landless, who, during his life, has swallowed a township, trees and all!



DEVON COW, HELENA.

Calved June 8th, 1851. Bred by and the property of C. S. Wainwright, The Meadows, near Rhinebeck, N. Y.

#### COTTON---CUT-WORM---RUST---ROT.

The Cotton crop of this State will be unusually short. The long drought of the summer caused the weeds to be small and the forms to shed, and the cut-worm in the spring, the army or grass-worm of the summer, and the rot in the fall have materially diminished the crop of this year as compared with the last.

Prominent among the ills the cotton plant is heir to, is the cut worm. It is the same worm that annoys the gardens. Last year it destroyed about one third of my cotton crop, and was equally attentive to that of a friend and neighbor, on an adjoining plantation. No one else in the neighborhood has been sensibly injured by it. I then selected a dozen of those worms and fed them in a glass jar; they ate voraciously, and after attaining their full size, and being thoroughly gorged, they lay stupid and passive, under the process of transformation to the chrysalis state, in which they are incapable of locomotion. After remaining in this state some two or three weeks, they came out moths or butterflies; then laid their eggs in great quantities on the under side of the cotton leaf, and died. The eggs hatched a day or two after they were laid, and the young brood commenced a vigorous attack on the leaf which nursed them. The cycle of their lives, from the egg to the moth, is about six weeks, varying a few days, according to circumstances, such as the weather and food.

This year, these worms commenced their work of destruction on my plantation and in my immediate neighborhood about the last of April, when the stand of cotton was fairly up; and from the quantity, then to be found around the young plant, threatened, in a very short time, utterly to destroy the stand. In consultation with my friend and fellow-sufferer of the last year, we agreed that, as we had then failed by the use of the hoe and plow, to check their progress, the only effective mode of protecting

our crops was to hunt the *worms* and *kill them*. My hands engaged in this work for a few mornings, but as the worms appeared to be doing but little injury, we quit it. They were grown, and going into the chrysalis state. Having gained some knowledge of their habits, and fully believing that we were to have another swarm during the season, I had the fields infested with them cut out to a stand, and the cotton put in first rate condition for growing off rapidly, so as to be beyond the reach of injury from the coming generation. Thousands of the chrysalis were exposed by the scraper and hoe at the depth of about two inches from the surface, and the hands in working were directed to destroy them.

A little more than a month after, the worms appeared in great force, but most abundantly in cuts where they had not been before noticed or hunted. All hands were at once set to work in gathering them, and kept at it from early dawn until breakfast every day for three weeks. The process was very simple. Before sunrise the worms were on the cotton, and easily caught and *bagged* in tin cups and gourds; as the day advanced, they hid in the earth at the roots, leaving unmistakable signs of their presence on the young plant; and thus directed, the hands caught them by merely grubbing in the loose earth. Immense numbers were destroyed in this way; I am right sure not less than ten bushels from first to last. At the end of our labors, their numbers were so diminished that I felt no further uneasiness about them. The places cut down by them were replanted about the 10th of June, and I have now a pretty fair average crop from the seed then planted. I am quite sure that by persevering in this course of extermination, I saved my crop from almost total destruction.

So much for my experience with the cut worm. I have given it to you in the hope that it might be somewhat interesting to some of your readers, but more especially to



request for my own and the benefit of the planting community in general, that you or some of your correspondents would give us a full history of this insect, stating its habits, and particularly in what condition it hibernates, whether in the egg or the chrysalis; what mode of culture is the best to prevent these worms from coming, or after they are on us, what can stay their ravages? Although too late to profit by such knowledge this season, we could treasure it up for the next.

The rust is another pest of the cotton planter. Commencing in spots, it rapidly enlarges its circles, until the whole field is embraced in them. Every cotton planter is familiar with its appearance and effects. What will prevent it? and what will destroy it after its advent.

It is a question among planters whether the rot or blight of the cotton boll is caused by an insect, or is a disease of the plant. Will some of your correspondents state their experience on this point, and give some opinion as to the remedy?

Is the cotton louse and the small ant we see about the young cotton, the same insect in different stages of its existence? H.

Yuzoo County, Miss.

### LIME—ITS VALUE TO AGRICULTURE.

EDITORS SOUTHERN CULTIVATOR—Much has been said in regard to the above caption, but I shall offer a few remarks which I have not had the pleasure of seeing in any printed form, and should they suit your views you can give them a space in your paper.

Lime has a two-fold tendency, one to do direct service to growing vegetation, the other indirect. Lime offers carbon on its own account by its superior affinity for it; it speedily decays vegetable fibre and throws an additional supply to aid their wants by its changing their condition into humus. Vegetable substances thus suddenly changed, not only offer carbon, but produce moisture by loss of their elementary condition. It coagulates alumina and renders the soil friable and easy of culture. We consider lime as a special generator or a reservoir for carbon to nascent plants.

Plants have an innate power of robbing from air and soil food to supply their wants. The leaves of plants have galvanic force in drawing, from atmosphere, carbon, roots, &c., on glass, and why not the rootlets drain from lime its elementary condition in this particular? It unquestionably does. Lime being thus suddenly deprived of its purity goes steadily to regain its supply which is again converted into use by plants, and thus continues as long as an uninterrupted state of affairs exist.

When we analyze our grain crops we find lime an indispensable article in their composition—they do not mature without it. Man needs this substance for the development of his bones—in bones and grain it exists, in a phosphate. We do not condemn special manures, but when we consider the great influence the vegetable kingdom possesses in the conversion of elementary substances into digestible food for their wants, we almost feel disposed to be incredulous on the subject. Nature has strange ways of its own. The *Datura Stramonium* culls its deadly drug from the same soil that the rose would fill our olfactories with rarest of perfumes or furnish our tables with the daintiest morsel to allay our hunger. Each genus seems to have its own road to travel, and changes constituents to its own liking and adaptation. We do not mean by this that lime would be formed from silica, or potash from alumina, but we are disposed to the opinion that where lime or silica or potash is present the plant changes it to suit its adaptation for its civil wants in that particular.

We have always considered fresh burnt (calcined) lime as best adapted to agricultural purposes. In this condition

it is sparingly soluble in water and enters into combination with the soil more thoroughly, neutralizing acidity and furnishing a greater scope for the rootlets of plants to feed upon.

Plaster to grass crops is said to be more efficient, but we do not see the philosophy of this. It is, however, more permanent from its insolubility as a sulphate, and would render good service to succeeding crops.

Lime is soluble in carbonic acid gas, and should always have topical application no matter in what form it may be applied. This gas is generated by the decay of vegetable matter and renders it always susceptible to the wants of vegetation whenever moisture is present. When plowed into the soil too deep it may go beyond the reach of the roots and to be of no service to the growing crop. This illustration is plainly proved by the stalactites in caverns, and the petrifying of wood and human bodies in certain lime districts where exposed to these influences.

POMONA.

Mississippi, November, 1856.

### AGRICULTURAL BOTANY—"CHINESE Sugar Cane."

RICHARD PETERS, of Atlanta, Ga., has experimented sufficiently with the Chinese Sugar Cane to satisfy himself that it will be of immense value to this country for making syrup. He first planted it in the spring of 1855, regarding it, as he said, "a humbug," until his children discovered toward autumn that it was as sweet to their taste as the real sugar-cane.

He planted it again last spring on land that would produce in an ordinary season, 40 bushels of Indian corn per acre. The seeds were sown in drills about 3 feet apart, plowed twice and hoed once.

When the seed was fully ripe, he had the stalks pulled and the seed seed-panicles cut off. The yield of seed per acre was 25 bushels, weighing 36 lbs. per bushel, and 1,200 lbs. of fodder. He procured a horse power mill, with iron rollers, worked by 2 mules, crushing out juice at the rate 8 gallons of syrup per hour, for experimenting. At the first trial of the mill, 70 average stalks passed through the mill gave 38 gallons and 1 quart of juice; two gallons more of juice were obtained by passing them through the second time. The 40 gallons and 1 quart made 8 gallons of thick syrup.

From an eighth of an acre, the yield of syrup was 58½ gallons—being at the rate of 468 gallons per acre. Thirty selected canes weighed 49½ lbs.; the weight of the juice, pressed out was 25½ lbs.; of crushed cane, 23 lbs; loss in crushing, ½ lb; and of crushed cane dried in the sun there were 9½ lbs.

This unexpected result led Mr. Peters to make an experiment on 30 stalks of Indian corn one week beyond the "roasting ear stage." The 30 stalks weighed 35½ lbs.; juice, 15½ lbs.; crushed stalks, 19½ lbs.; loss in crushing, ½ lb.; yield of syrup, 1½ pints; and it was of a very disagreeable taste, rendering it entirely unfit for the table.

Dr. Robert Battey, of Rome, Ga., made the following tests of the Chinese Sugar Cane juice and syrup at the mill: specific gravity of the juice, 1.055; syrup, 1.355; New Orleans syrup, 1.321; thermometer applied to syrup indicated 77 degs.; to the juice, 70 degs.; saccharometer, 25½ degs.

The juice should immediately after being extracted, be placed in boilers, and boiled slowly until the green scum ceases to rise; then stir in a teaspoonful of air slaked lime to every five gallons of juice; continue boiling and skimming until the syrup thickens and hangs down in flakes on the rim of the dipper, when immersed and removed.

The cost of making in upper Georgia, will not, says Mr. P., exceed 15 cents per gallon. He proposes to plant 50 acres next year. He remarks that he is satisfied that

this plant will enable every farmer in the Southern States to make all the syrup required for home consumption. He also adds, that the chemists, in his opinion, will be able to discover a method of converting it into sugar for export, thus rendering the Chinese Sugar Cane a staple production of the Southern States.

Thus much for Richard Peters' experimenting. He will probably find, by experimenting further, that the cane will yield more syrup, if the plant be not allowed to blossom and bear seed.

This matter was referred to in a former article on this subject, to which the readers's attention is directed.

This plant was introduced into France in 1851 with the expectation that it would supersede the use of the sugar-beet in the manufacture of sugar and alcohol. It is called there *Sorgho Saccharatus* or *Holcus Saccharatus*, and was obtained from China, known as "the Sugar Cane of North China." It is said to be one of the richest plants in Saccharine property known.

The sugar beet yields from 8 to 10 per cent. of sugar; the Sorgho from 16 to 20 per cent., from which 8 or 10 per cent. of pure alcohol can be produced; and the refuse is good feed for cattle. It is said that the Chinese make large quantities of sugar from it. If this latter statement be true, then it would seem that the art of crystallization is understood by the Chinamen. M. Vilmorin has made cider from it, demonstrating that 2,400 gallons of cider may be produced per acre from Sorgho. Mr. Wray, quoted in a former article on this subject, further states this plant will grow wherever Indian Corn will ripen, through it matures better in hot climates; also that two crops a year may be raised in the cotton producing States, and one anywhere south of 45 degs.; that it does not require re-planting oftener than the hop; and that it will produce from 3,000 to 4,000 lbs. of choice sugar per acre, at each harvest.

Mr. Wilder, of South Africa, a missionary of the American Board, writes to the *Journal of Commerce*, confirming Mr. Wray's statements, and adds, that the plant while growing, resembles broom corn. The natives of Natal cultivate it for its saccharine juice, of which it yields a larger quantity than the common sugar cane, but not as rich in quality.

He remarks that the juice produces from one-half to three-fourths as much sugar as the real sugar cane. The advantage it has over the sugar cane is, that it grows well wherever Indian corn does, and may be raised from the seed in four months, ready for making sugar. It will grow as well on high land as low, and yields an abundance of seed which makes good feed for horses.

Notwithstanding all that has been said of this plant, a writer in the *Florist*, published in Philadelphia, maintains that Sorgho, or "Imfy," is only a variety of broom corn, "turned up in a foreign land."

The plant under cultivation in New England will, undoubtedly degenerate, *i. e.* lose its saccharine qualities. Hence, it will be necessary in experimenting to procure seed from a more Southern clime every year in order to retain, or secure the greatest possible amount of saccharine juice.

Many feel inclined to try the plant another season in order to satisfy themselves whether or not, syrup, rich and palatable, can be produced; for, say they, if we can make a good substitute for molasses, from the product of our own farms, though we do not succeed in making sugar, much will, however, be gained.

Richard Peters is sanguine that it will succeed well at the South. It will be cultivated there with greater profit than in more northern climes. Whatever shall be the result in sugar and syrup making, it will, it is thought by some, be found a good product for soiling cattle. It is hoped that farmers will test it for this purpose.

As Mr. Peters proposes to plant fifty acres of it next year, it is hoped that he will test the saccharine qualities of the plant at different stages of the growth of it; also whether the blossoming and bearing seed do not materially diminish the saccharine richness. It is believed and maintained by some, that the amount of saccharine is increased by removing the panicles before it flowers. This is, undoubtedly, true. Experimenting can easily confirm or overthrow this now quite probable inference.

In experimenting, farmers must be careful that they are not deceived in purchasing seed; for there are several species, and a great number of varieties of Sorghum, Holcus, and millet near relatives of the botanical family to which they all belong, that are of no agricultural value in New England, and of little where indigenous.

RURAL OBSERVER,

[in Massachusetts Ploughman.]

#### IMPROVEMENT OUR WATCHWORD.

EDITORS SOUTHERN CULTIVATOR—Having been a subscriber to your valuable journal for the last six years, I have perused its contents with the utmost pleasure, and always found its pages replete with entertaining and instructive matter. As I did not deem myself capacitated to contribute to its columns, I have never before ventured to intrude upon you and the patience of your readers. It was not, however, for want of disposition on my part, but from my sense of inadequacy for the performance of such duty. Were it otherwise, I would not only now, but time and again contribute my mite to yours, as well as others of my favorite periodicals devoted to agriculture, and to the best of my ability advance the *farming cause*. Now, that it is my adopted pursuit, I am a warm advocate for progressive improvement. While I yet highly appreciate my former profession, and heartily sympathize with the *old fraternity*, my greatest interest and warmest enthusiasm are with my adopted brethren. Were it my province, fain would I tread some, as yet, untrodden track, draw upon some unexhausted fund of language and matter, and adduce some unstale argument, to arouse our brotherhood from their lethargy in the cause most dear to us, and upon which the whole train of business pursuits depend. It is the *mainspring*, the *lever*, by while is moved, and upon *its success depends the prosperity of all*.

Earnestly would I urge that we adopt "*Improvement*" as our watchword, not only in the tillage of our fields and culture of the various growing crops, but in the preservation and improved condition of our soil, by an elevated standard and system of farming in every respect. I look forward with the most pleasing anticipation to the time when the old systems shall have been forgotten, and new and improved plans prevail throughout our Southern land—when we shall be independent of the North for agricultural implements, improved breeds of stock, poultry, &c., and would that I could add of her manufactories, merchandize and all. But, credit to whom it is due. The agricultural sun, which long since rose in the East has been rising higher and higher, until it has well nigh reached its zenith in our Southern land, and ere it has fully reached the more distant West, may not our beloved country teem with the most promising and prosperous results? But how is all this to be accomplished? Through the medium of agricultural journals, developing practical experience and scientific research, and disseminating knowledge, interesting and instructive to all classes. And, "last, though not least," I would inculcate the principle, *love the old home!* Cherish its memory—cling to the old associations—embellish its walks and improve its grounds—for it was the *home of your fathers*. Those hallowed influences will be ever present to cheer you in the monotonous tedium of your routine calling, ever proving a constant source of emulation.

Excuse the wanderings of my pen. I had a particular object in view in the outset, but as I have already occupied more space than I intended to, I shall close without reaching it at present. With the best wishes for the continued success of your time-tried paper, as well as your neighbor, the *Soil of the South*, also our State journal, the *American Cotton Planter*, I am, very respectfully,

HOMESTEAD.

Pleasant Hill, Ala.

### BOYS.

EDITORS SOUTHERN CULTIVATOR—May I not hold up to your youthful readers some of the characteristics of a farmer, with whom I am acquainted, who is now in the eighty-first year of his age, and urge upon them to imitate him. He was ever an early riser in the morning. The sun rarely ever caught him in bed. His language to his boys was:

"He that would thrive  
Must rise by five."

He was ever temperate in eating and drinking, and as a consequence was uniformly cheerful. Often his family awoke by the soothing sound of his cheerful morning song.

He always kept his "farm enclosed with a good fence," which saved him from being annoyed by stock breaking into his fields. O, the vexation and loss which some men are subjected to by keeping bad fences, and, unhappily, sometimes their neighbors have to share with them.

This aged farmer ever kept out of debt—he almost made it a rule to "owe no man."

"To Creditor or Bank he'd never to run,  
He feared neither Constable, Sheriff or dun."

He raised his own horses, mules and oxen, and always superintended breaking them, and on such occasions employed none but gentle means, acting on the principle that "a gentle hand will lead an elephant by a hair." It was remarkable that his animals were always "true pullers."

When driving his horse to the plow, or his team on the road you would never hear his voice above a "Mezzo Tone." How different this from many. I know some boys, ah! and men too, who, when plowing can be distinctly heard a half mile. Such seem to practice the higher department of dynamics. They strike, "Torte," and from which proceed with a rapid "Crescendo," until their power to produce sound is exhausted. I often hear "gee and haw" in the "explosive tone." Of course this plan of driving horses is not musical.

Now I would say to young plowmen, be calm, be gentle, but "onward move." The horse you drive is a noble animal; treat him kindly, he can appreciate it and will reciprocate your kindness.

FILIVS.

Rough and Ready, Ga., 1856.

### LETTER FROM TEXAS.

EDITORS SOUTHERN CULTIVATOR—This section of country is yet new in cultivation; but the rich soil and delightful climate are inviting rapid improvements.

As to soil, it is not inferior to the Mississippi bottom, and you have no idea or conception of the beauty of our prairies in flowering time.

I send you a few seed of a beautiful shrub tree, called "The Free-ho-lee-ah," which I have never seen growing anywhere but in Texas. It is an evergreen: grows from 3 to 8 ft. high; leaf green and resembling the *Kalmia* of Virginia; the flower is purple and in bunches, similar to the Locust flower; the petals similar to and forming a flower like the pea. It blooms about the 21st of March, and the seed are enclosed in a pod of the ground pea appearance, and generally two in a pod.

I feel confident, if this can be raised in your section, it would be the delight and admiration of the ladies, as also other lovers of floral beauty.

I send you a sample of Mexican Onion seed, which I procured fresh from Mexico. This onion is highly prized by the lovers of that succulent vegetable. It is without the strength of the common onion, being so mild you may eat it as you do an apple. I have seen it as large as a common saucer, and when sliced it looks as though it had been iced.

I am told they do not grow to that perfection North as here. It may be so, but "they say" has injured more crops than ever did deep plowing.

I want to raise the ground pea, but know nothing of the mode of culture. Will you please, by letter or through the *Cultivator*, give me, minutely, the mode of preparing ground, planting, and after-culture? My soil is "black sandy loam," 4 to 5 feet deep, based on a stratum of clay, lime and sand.

Did you ever hear of the Salt Lakes of Texas? Do you want to? Last month I could have taken you to fifty places within 30 miles of me and have shown you millions of bushels formed by solar evaporation, and all you had to do was, back your cart and pitch in. You may judge of the quantity and quality, when I tell you I think there is enough (if salt would do it) to save all the Black Republicans in this Union; that would require a large quantity and great curative powers.

On the 23rd of February I set out 9 orange trees, and after the spring rains I mulched with chips and trash from wood yard, as directed in the *Cultivator*, and until the 21st of September they had no rain for 4 months (and a scorching hot summer). They are all safe and doing well—credit to the *Cultivator*.

I think this section is going to produce fine Sea Island Cotton. A small sample was tried last year at Corpus Christi, and received the highest encomium from judges in New Orleans. It will be fairly tested next year.

With respect, F. B.

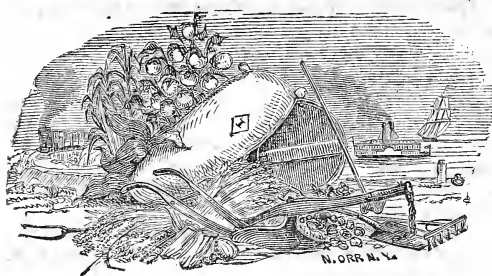
Rancho, near Corpus Christi, Texas, Oct., 1856.

### CHINESE SUGAR CANE IN TEXAS

A subscriber, (E. B.) writes us from Gonzales, Texas, as follows:

I have tried the Chinese Sugar Cane here and find it an important acquisition to our agricultural resources. It stands drouth better than any other plant that I am acquainted with. It seems admirably adapted to our climate here. Its introduction into this country must produce an entire revolution in our rural operations. Its culture will supercede that of Indian corn and other forage crops to a considerable extent, and the monopoly of sugar will no longer be restricted to the State of Louisiana; it will afford ample opportunity of raising poultry, making butter, cheese, pork, lard and bacon, and be the means of producing a quantity of manure where that is needed. I doubt whether it will answer as well on poor land as has been represented by some writers; except, probably when sown broadcast for forage. I find it easily affected by frost. In every other respect the accounts which I have seen are entirely within the bounds of truth.

I planted the Sorgho on the 14th of April, plowed it once and subsoiled and hoed once. We had no rain after the 13th of May. The grain matured about the middle of July and produced at the rate of 50 bushels to the acre as to the land planted, but from depredations of bugs and poultry there was not half a stand. After the grain was gathered the stock was burned in the field and I had no opportunity of ascertaining what a second crop would have produced. The stubble is now green, the sprouts have been destroyed from time to time as they have appeared by stock, and recently by the frosts. E. B.



## The Southern Cultivator.

AUGUSTA, GA:

VOL. XV. NO. 1. JANUARY, 1857.

☞ We most cordially tender the "compliments of the season" to all our subscribers, readers, correspondents and contemporaries; and hope our united efforts in the glorious cause of Agricultural Improvement may be productive of the best results, during the year upon which we are just entering.

### ANSWERS TO CORRESPONDENTS.

**SYRUP MAKING.**—W. M.—The pamphlet noticed in our last will give you the desired information. D. B. PLUMB & Co., of this city, will send it if you wish it.

**OSAGE ORANGE.**—*Subscriber.*—Of course, it will "thrive in the Mississippi bottom;" it is its "native home." Set your plants 6 or 8 inches apart in a single row—cut them off close to the ground when you plant, and clip them 3 or 4 times per year afterwards, for the first few years. We do not know of any plow "made expressly to tear up cane roots." Can our readers give us any light on such an implement?

**GANG PLOWS.**—W. W., M. D.—We cannot recommend these Plows for the South. It costs too much to keep them in repair, and they are not adapted to our systems of culture.

**NEW PLOW.**—A. R. C.—We cannot advise you in regard to the Plow unless you send us a model; but if it will do the work mentioned, it is certainly an acquisition.

**ROWE'S CRUSHER** (G. B. A.) is an excellent machine for heavy work. We cannot state the difference in power between it and the "Little Giant."

**EVERGREEN SEED.**—D. D. H.—These will have to be imported. Mr. NELSON will write you.

**GRAPE CUTTINGS, &c.**—T. R.—State the number you desire, and we will furnish them.

**FEEDING OFF WHEAT FIELDS.**—J. McM.—We have never approved of the practice, particularly on stiff lands. Better keep your stock off.

**SUGAR MILL.**—J. C. A.—You will find your inquiry answered on another page.

**YOUTT ON THE HORSE.**—J. L.—Send \$1.50 to C. M. SEXTON & Co., 140 Fulton street, New York, and they will send you the work per mail, *prepaid*.

**SUMAC.**—B. McK.—WM. R. PRINCE, of Flushing, New York, proposes to furnish the true Dyers' or Tanners' Sumac.

**ASPARAGUS BEDS.**—A. A. P.—Never allow your plants to go to seed—cut them down when half grown, and cover the ground with a thick mulch of leaves, &c.

### PEABODY'S NEW STRAWBERRY.

WE are in receipt of the following letters from Cincinnati, Ohio, the head-quarters of the Strawberry in America; and can only remark, in reply to our correspondent, that we have no further information on the subject than Mr. PEABODY and his neighbors have furnished. With every desire that it should have a fair and impartial trial, we regret that the plant should not have been placed in the hands of a committee of disinterested gentlemen, whose report would, of course, have been satisfactory. We cannot think that Mr. PEABODY would peril his reputation for the sake of a few paltry dollars; and yet, those *seven inch* Strawberries, with all the perfection of long keeping, exquisite flavor, etc., seem almost "too good to believe." That berries of this size and even larger, have been raised, however, we are quite confident; and that Mr. PEABODY's new fruit is all he claims for it, we are willing to concede, until convinced of the contrary. We, therefore, submit the matter *pro* and *con* to our readers:

CINCINNATI, OHIO, Nov. 14, 1856.

**EDITORS SOUTHERN CULTIVATOR.**—You have published the article of Mr. PEABODY in relation to his Seedling Strawberry, which he claims to be superior to all others, but of which he will let us know nothing, till we send him \$5000. Can any Strawberry be of value, that can be carried 1200 miles by a wagon, railroad and steamboat without mashing? Does not the article bear a character more than suspicious? We rely on you Editors for information, and deem it a duty you will cheerfully perform. Have you seen it bearing and tasted the fruit? If not, has any reliable person who has, stated to you its quality? What is your opinion of it from what you know or the peculiar demand before he will sell? Answer and oblige many besides a subscriber. If you will vouch for the truth of the statement, orders from here will be numerous, if the price was four times the present charge.

A SUBSCRIBER.

CINCINNATI, OHIO, Nov. 1, 1856.

**EDITORS SOUTHERN CULTIVATOR.**—We feel a deep interest in the Strawberry. Mr. PEABODY's advertisement is singular and wants confirmation. He wants \$5000 for plants before he will sell one, of a plant that it does not appear has ever been seen in bearing. If seen in bearing, and the fruit equal to his statement, he would have 20,000 calls. Can any Strawberry be a good table fruit that can be sent 1,200 miles by wagon, railroad and steamboat without mashing? Our best strawberries require a spring cart to carry them even in small baskets a mile or more to market. If you know the value of this plant is equal to its character, advise us. If its value is not known, we deem it the duty of Editors of a Horticultural paper so to state. If its quality is not known with you, we should deem it worthless. We rely on Horticultural papers for information of the quality and value of plants. In your report we shall have full confidence.

A HORTICULTURIST.

As the only reply to the above which we can give, and in justice to Mr. PEABODY, we cheerfully copy the following from the *Soil of the South* for December:

**OUR NEW SEEDLING STRAWBERRY.**—We are happy to inform our readers that the subscription list comes bravely on, and that we shall be able to send out the plants before spring.

The following letter from the Rev. Dr. Higgins, a gentleman of refined taste and an extensive traveller, both in Europe and America, will show his appreciation of the fruit, and the fidelity of the painting:

COLUMBUS, GA., Nov. 6th., 1856.

CHARLES A. PEABODY, Esq.—*Dear Sir*—I accept, with great pleasure the painting of your new Seedling Strawberry. Mrs. Torrey has truly made a beautiful picture, and yet has done but simple justice to the fruit. I retain a very vivid recollection of my examination of the plant a few months since, and am greatly struck with the fidelity of the drawing now lying before me.

As to the fruit itself, I must beg to repeat what I said then—that for size, beauty, flavor and luxuriance of plant, I have never seen a strawberry to compare with your Hautbois Seedling. You may safely stake your reputation upon its success. I shall indeed be greatly disappointed if your fellow-citizens, both North and South, do not fully appreciate this latest triumph of your genius in this department of Horticultural enterprise.

I have great pleasure in subscribing myself, dear sir, very truly yours,  
SAMUEL H. HIGGINS, D.D.

#### THE WINE TEST OF MR. AXT.

MR. CHAS. AXT, of Crawfordville, Ga., already favorably known in this State as a Grape Grower, recently exhibited some specimens of wine in this city, made by him from the Catawba Grape, which were grown at his place during the years 1855 and 1856. There were two samples of the vintage of 1856 and one of 1855, known as dry Catawba. These wines bore the test triumphantly and were pronounced of good body and fruity taste. The wine of 1855 was considered the best, having improved by time. Mr. Axt (says the *Constitutionalist*) has achieved for himself and for the South a great result in the successful introduction of this important branch of industry into this State. His wine we would place in the front rank of American wines of the same class, equal to the best dry Catawba from LONGWORTH'S or WERK'S cellars.

#### CHINESE PROLIFIC PEAS.

MESSRS. D. B. PLUMB & Co. (the Agents) as well as ourselves, have received a large number of orders for this new and remarkable Pea, all of which are duly entered, and the Peas will be sent out about the first of February. We are authorized by the gentleman who raised these Peas to warrant them fully up to his representations in all respects; and the concurrent testimony of his neighbors leaves no doubt of their great value. The quantity of seed on hand is quite limited, and early orders are therefore advisable.

CONSOLIDATION.—The *America Cotton Planter* and *Soil of the South* have been united, and will be hereafter published in the city of Montgomery, under the editorial charge of Dr. CLOUD and CHAS. A. PEABODY, Esq. Both these gentlemen possess excellent qualifications for their work, and will, doubtless, produce a first class Agricultural Journal. Terms \$1 per annum. Address Dr. N. B. CLOUD, Montgomery, Ala.

#### GARDEN SEED.

OUR friends, D. B. PLUMB & Co., have now the largest and best assortment of Garden Seeds we have ever seen in this market. They will send Catalogues by mail and fill all orders promptly and with care. (See advertisement.)

#### OUR BOOK TABLE.

THE AMERICAN POULTERER'S COMPANION.—A Practical Treatise on the Breeding, Rearing and General Management of various species of Domestic Poultry, Illustrated with portraits of fowls, mostly taken from life; Poultry-Houses, Coops, Nests, Feeding-Hoppers, &c., &c. A new edition, enlarged, and improved. By C. N. BEMENT. With 120 illustrations on wood and stone. New York: HARPER & BROS.

The "rage" for high-priced "model" Shanghais, and other aristocratic denizens of the poultry-yard, has passed away; but the taste for ornamental fowls is too natural, and the luxury and economy of a well-kept Poultry Yard too generally appreciated, for country resident at least, ever to become indifferent to the subject. We, therefore, hail with pleasure the appearance of our old favorite, BEMENT, so greatly "enlarged and improved," that we find it impossible to recognize in it the humble and unpretending volume over which we pored so eagerly some ten or a dozen years ago; and from which we probably imbibed a good share of that once wide-spread mania known as the "hen fever." The present volume contains a vast amount of new matter; about 100 finely-executed wood cuts, and some 20 colored lithographs, many of them of great fidelity and beauty, and is altogether superior in character and execution to any work of the kind yet published in this country. It will be found a useful and ornamental addition to the library of any of our readers.

For sale by GEO. A. OATES & Bro., Augusta, Ga.


REPORT OF THE COMMISSIONER OF PATENTS for the year 1855. *Agriculture.*

The Volume of Patent Office Reports for 1855 is of more than usual interest. It is embellished with three colored portraits of noted English Devons, and fine wood cuts of the Cashmere Goats of Mr. PETERS, of Atlanta—also, pictures of various insects injurious to vegetation, outlines of Haarlem Lake, drained and undrained, &c., &c. Among the subjects treated of at length, we notice the following: Animals (Domestic), Apples, Almonds, Apricots, Bees Cabbage, Cattle, Chinese Sugar Cane, Chinese Yam Climatology, Colza, Corn, Cotton, Crops, Dairies, Devon Cattle, Eggs, Exports, Fences, Fertilizers, Fodder, Forage Plants, Gardening, Goats, Grape Culture, Grass, Guano, Hay, Honey, Horses, Improvement of Land, Indian Corn, Insects frequenting the Cotton Plant, Lightning, Liquorice, Madder, Manure, Meteorology, Milk, Millet, Mules, Oats, Oil, Olives, Onions, Orange Trees, Oris Root, Palma Christi, Peas, Peaches, Pears, Pepper, Plums, Potatoes, Poultry, Raisens, Rice, Rye, Salt, Sheep, Sorgho Sucre, Sugar and Sugar Cane, Swine, Tamarind? Tea in the United States, Timothy, Tobacco, Turnips, Vanilla Plant, Walnut, Wheat, Wine, Wool, Yams, &c., &c.

It may be obtained from the member of Congress from your District, and is well worth writing for.

TO CORRESPONDENTS.—Communications bearing the following signatures have been received, and are on file for examination and insertion:—J. O.—G. D. H.—John Roberts—Parke Jones—E. J. Taylor—W. A. T.—W. N. W.—J. H. V.—J. D. F.—R. B. N.—E. R. K.—Dr. M. W. P.—Georgian—E. J. C. W.—L. C. Gaines—J. B. H.—S. Heard—F. M. A.—J. F. E.—J. S. R.—F. B.—W. H. S.—J. H. J.—Rusticus—L. S. G.—W. H.—S. R., &c.




 The *Home Journal* always has been, and no doubt always will be, while under the editorial care of MORRIS and WILLIS, one of the most refined family newspapers extant. The series for 1857 will contain new attractions, new features, and new type. The editors will continue to devote their time and abilities to the work. N. P. WILLIS proposes, in addition to his usual picturings of home-life, and rural family sympathies and interests, outdoors-and-in, to give more of his valuable "Letters on Health," which his experience enables him to write, and which have been so widely quoted, both at home and abroad, and also "a series of Portraits of Living character." General MORRIS, besides his usual constant labors upon the several departments of the paper, will make it the woof on which to broider first the new sketches, songs, ballads, etc., suggested by the history and events of the passing time. T. B. ALDRICH, the gifted young poet, whose productions have recently created such a sensation in literary circles, has prepared an original prose poem, entitled "the 'Rose of Glen Lodge,'" which will be published in numbers, from week to week. GENIO C. SCOTT will continue his *piquant* and popular papers on fashion, gossip, romance, etc., which have proved so "interesting to ladies." Besides these constant writers, the *Home Journal* has a corps of correspondents, wholly unsurpassed, in the society of New York, and through these gifted and refined "mediums," its readers are kept apprised of all that occurs new, charming and instructive, in the brilliant circles of city. For the health, and moral improvement, and the religious culture of families, the editors watchfully gather every new suggestion, and carefully chronicle all signs of progress and utility. By unceasing vigilance and industry, and by skill, acquired by long and successful practice, they will, undoubtedly, still keep the *Home Journal* in the front rank of family newspapers. The terms are two dollars a year in advance. Address MORRIS & WILLIS, New York.

AGRICULTURAL STATISTICS.—The following valuable statistics, which we take from *Hunt's Merchant's Magazine*, give the nearest attainable approximation to the number of acres cultivated in each crop:

*Land actually cultivated in the several crops of the United States, in 1849-'50.*

Product.	Acres.	Product.	Acres.
Indian Corn . . . .	31,000,000	Sugar . . . . .	400,000
Meadow or Pasture exclusive of Hay crop . . . . .	20,000,000	Barley . . . . .	300,000
Hay . . . . .	13,000,000	Rice . . . . .	175,000
Wheat . . . . .	11,000,000	Hemp . . . . .	110,000
Oats . . . . .	7,500,000	Flax . . . . .	100,000
Cotton . . . . .	5,000,000	Orchards . . . . .	500,000
Rye . . . . .	1,200,000	Gardens . . . . .	500,000
Peas and Beans . . .	1,000,000	Vineyards . . . . .	250,000
Irish Potatoes . . .	1,000,000	Other products . .	1,000,000
Sweet Potatoes . . .	750,000	Improved but not in actual cultivation . . .	17,247,614
Buckwheat . . . . .	600,000		
Tobacco . . . . .	400,000	Total . . . . .	113,033,610

 It is stated that the stalks of sunflowers may be profitably used in making paper, the fibrous nature of the plant being well calculated to furnish materials for fine writing and printing paper, as well as fine and coarse paper hangings.

#### COTTON SEED EXPORTED.

Our commercial report of this morning notices the engagement of a ship of 800 tons to take a full cargo of cotton seed to Providence, R. I., where the articles is to be turned into oil cake.

An extensive factory for extracting oil from the seed of cotton is already in operation in Rhode Island, and we understand that one or two companies are forming in Boston with the object of getting up similar establishments there.


This is an enterprise in which the South is deeply interested, promising, as it does, to convert an article hitherto almost worse than useless into one of great commercial value.—N. O. *Picayune*.

[How much more sensible it would be for us to get up these oil-mills at home, and secure to ourselves the profits of manufacture.—Eds.]

IMPORTANT INVENTION FOR COTTON PLANTERS.—Mr. GEO. G. HENRY, a merchant of Mobile, has obtained a patent for an arrangement and combination of machinery which is expected to create quite a revolution in the industry of the South. By its means the seed cotton will be converted on the plantation, by one continuous process, into merchantable yarn, and this without a greatly increased outlay of capital, and with the ordinary labor of the plantation. We shall have more to say respecting this invention, hereafter.

VANILLA.—The Vanilla Bean, which is now much used in flavoring puddings, jellies, ices, etc., grows in Mexico, near Vera Cruz, and has become very profitable to the cultivators. The Bureau has information that last year's importation of, and consumption in the United States, of this article, amounted to 5,000 lbs., at a cost of \$20 per pound, or \$100,000, paying the United States a duty of 20 per cent., of \$20,000. At the present time the Vanilla Bean is selling at \$30 to \$40 per pound.

[Has the culture of the Vanilla Bean ever been attempted in our Southern States? We have an idea that it might be raised here, and shall endeavor to procure some of the seed for trial.—Eds.]

 The "Van Derveer Cotton" is said to be a new variety of superior excellence. The seed is for sale in Savannah, by Messrs. LOCKETT & SNELLINGS. FARLEY, JUREY & Co., of New Orleans, make the following statement respecting it:

NEW ORLEANS, Oct., 1856.

We have sold Mr. Van Derveer's two last crops, and from the excellence of his cotton, have obtained for it 2 to 4 cents per pound more than other kinds of cotton will command.

FARLEY, JUREY & Co.

This is all we know of its merits. It is probably worthy of a trial.

A GREAT HONEY CROP.—Mr. M. QUINBY, of St. Johnsville, Montgomery county, New York, has sold this year upwards of 20,000 pounds of honey, principally produced by himself, and the remainder by a few neighbors who have followed his example. Himself and son make the production of honey a business, and undoubtedly a very profitable one. The honey is deposited by the bees in small, cheap boxes, with glass sides and ends, and sold in the same by weight, including the weight of boxes.

**SALE OF BROOD MARES.**—The *Bardstown* (Ky.) *Gazette* says that Messrs. F. G. Murphy & Co., of that vicinity, have sold to R. A. Alexander, of Woodford, Ky., the following brood mares, at the prices annexed: Motto, \$1,000; Sally Ann, \$1,000; Betty Lewis, \$1,000; Kate Quinn, \$500.

**GREAT YIELD.**—MR. WILLIAMSON PAGE, of this county, says the *Raleigh Standard*, raised the following crops on one acre of land, viz: In September, 1855, he sowed one bushel of wheat mixed with turnip seed, from which he raised 45 bushels of wheat and about 800 bushels of turnips. In June, 1856, he planted the same ground in corn and peas, and has harvested 51 bushels of corn and 64 bushels of peas. The only fertilizer used was stable manure.

## horticultural Department.

### FLOWERS FOR THE SOUTH.

**EDITORS SOUTHERN CULTIVATOR**—Though we of "The Sunny South," are blessed with a beautiful climate, still our friends from the North feel somewhat disappointed in examining our gardens, for, with the exception of a few dreary-looking arbor vitæ and some unsightly rose bushes, very few ornamental plants are to be found; in fact, we want diversity of flowers. I will, therefore, here give a short list of such kinds of flowers, as will thrive in our latitude, and will at some future time make additions to this list. The seeds of them should be sown in the fall or early in the spring:

*Adonis æstivalis*, Pheasants eye, with a deep scarlet flower and feathery foliage.

*Ageratum cæruleum*, a beautiful blue annual, recently introduced from Mexico.

*Amaranthus tricolor*, well known under the name of Joseph's coat.

*Althea rosea*, Hollyhock, a well known perennial, which of late has been highly improved.

*Althea Chinensis*, Chincse Hollyhock, in many double varieties, introduced from China.

*Ammobium Alatum*, an everlasting little white flower from Australia.

*Antirrhinum Majus*, Snapdragon, in great variety of colors.

*Aster Chinensis*, German Asters. More than 30 double varieties of this beautiful flower are offered by florists.

*Calendula Crista Galli*, a well known annual.

*Callispsis Bicolor*, yellow, with a dark brown centre.

*Carthamus Tinctorius*, with an orange colored flower and a thistle-like appearance.

*Catanauche Cærulea* and

*Catanauche Bicolor*, with handsome everlasting flowers, natives of Turkey.

*Celosia Cristata*, Cockscombe, in great variety of shades, one of our very best annuals.

*Celosia Indica*, Slender Cockscomb, at first deep pink, changes to silvery white.

*Centaurea Cyanus*, blue.

*Centaurea moschata*, Sweet Sultan, lilac colored.

*Centaurea scævolens*, Yellow Sultan.

*Delphinium*, Larkspur, in many varieties, the hyacinth-like flowering are the finest.

*Delphinium Chinensis*, a beautiful perennial Larkspur of several colors, from China.

*Dianthus Caryophyllus*, Double Carnations. This is an old and highly esteemed flower, still seldom to be met with in our gardens. Must be increased by layers every year, as the old plants are very apt to die out.

*Dianthus Chinensis*, Chinese Pink of an almost endless diversity of shades, single as well as double.

*Dianthus Imperialis Plenissima*, a new and splendid variety, just introduced.

*Dracocephalum Moldavicum*, Blue Dragons Head, from Turkey.

*Double Balsoms*, in many colors.

*Elicrysium Lucindum*, yellow, and

*Elicrysium Macranthum*, white or pink, both very valuable flowers, from Australia. They are everlasting flowers, and will, when put in a drawer, keep fresh for many years.

*Emilea Flammca*, a small scarlet annual.

*Gilia Tricolor*, three colored Gilia.

*Gomphrena Globosa*, Batchelors' Button, either crimson, white, or orange colored.

*Heliotropium Peruvianum*.—This flower, so highly esteemed for its delicious vanilla fragrance, will, when covered over in the autumn with earth, stand our winters south of latitude 33°.

*Hesperis Tristis*, Dark Rocket, and

*Hesperis Matronalis*, White Rocket, both biennials, are very fragrant after sunset.

*Iberis Speciosa*, Purple Candytuft.

*Ipomoea Quamoclit*, Cypress Vine, from Mexico, the most graceful and fairy-like climbers, when trained as an arbor or screen.

*Lavatera Trimestris*, a pink flower, from the south of Europe.

*Papaver somniferum*, Double Poppy, in a great many colors.

*Papaver Murselli*, Splendid Poppy.

*Pharbitis Limbata*.—This beautiful "Morning Glory," of recent introduction, has a dark purple flower, distinctly edged with pure white, in beautiful contrast.

*Phlox Drummondi*, in great variety of colors.

*Polygonum Tercitifolium*, an exceedingly graceful Southern perennial, described in the February number (1856) of the *Southern Cultivator*.

*Portulacca Thellusoni*, Scarlet Portulacca, blooms all summer, but only in the forenoon.

*Poterium Sangvisorba*, is excellent for edging flowerbeds; perennial.

*Reseda Odorata*, Mignonette; this very fragrant little flower, from Egypt, will continue blooming for a long time, if constantly cut off, and not suffered to produce seed.

*Rhodanthe Manglessii*, from Swan River, in Australia. Of all the everlasting flowers this is certainly the most beautiful, the drooping, pink colored flowers have an exceedingly graceful appearance.

*Salpiglossis Variabilis*, Petunia, from Buenos Ayres, in many different colors; will stand our winters under a slight protection.

*Scabiosa Atropurpurea*, Mourning Bride, in several shades.

*Senecio Elegans*, Double Purple Jacoboa.

*Tagetes Erecta*, Double Yellow, African Marygold.

*Tagetes Patula*, Double French Marygold.

*Verbena Melindris*.—It is but a few years since this

plant was introduced from Buenos Ayres; varieties of the greatest diversity of colors have sprung from the original scarlet flower; and now it is considered indispensable in any garden.

*Viola Odorata*, fragrant violet; perennial.

*Xeranthemum Annum*, a purple eternal annual.

*Zinnia Elegans*, in many varieties, of which the scarlet is one of the finest.

The Gillyflowers and Ten Weeks Stock have been described in the December number of the *Southern Cultivator*.

*Wallflowers*, double in different shades, are biennial, and will not, therefore, bloom before the second year.

ROBERT NELSON.

Augusta, Ga., Dec., 1856.

## THE PEAR—ITS CULTURE IN THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—Our ideas about happiness and contentment in this world are as different, as opposite, as human minds and organizations are. But there are some subjects about which most all of us have some convictions, and which indeed constitute the basis of human happiness.

Among those are health and the comforts of life. Health is sometimes independent of our will and exertions; but the comforts of life can almost always be realized to a greater or less extent, when we make those consist in things really useful, easily attainable and promoting health and cheerfulness of disposition. Our diet or daily food, of course, is among these, and is certainly worthy of great consideration.

Every one of us cannot select a locality of his choice, but scarcely any locality, fitted for the abode of men is to be found, where industry and skill cannot make the soil produce crops, fruits and flowers, adapted to the climate, and which add so much to the comforts of civilized life.

It is natural, therefore, that the inhabitants of such a climate as yours, where few natural fruits grow spontaneously, (?) should endeavor to increase those luxuries suited to the locality. As far from the oranges of Cuba as you are from the choice productions of the East, (the eastern and northwestern Apples and Cherries,) it must be your object to improve every fruit which your soil can produce. What may be considered barely as a luxury in a colder climate, becomes a necessity for you. The constant use of good fruit is one of the means best calculated to counteract obstructions and bilious diseases, the result of a diet founded on careless habit; but not well adapted to such warm latitudes.

The South is already comparatively rich in native varieties of Apples and Peaches; but the Pear has been much neglected, although well adapted to your climate.

Let the Apple remain where it was in the first days of Creation, perhaps at the top of the list of the useful fruits; but let the Pear not be overlooked. It is a luscious, healthy fruit, a constant bearer, and, under good management, a hardy and thriving tree. All depends upon a selection of such varieties as are suited to your climate, and the stock which is best suited to the different soils and localities. Much has been said about the preference to be given to the Pear or to the Quince stock; both are good, but require different treatment. All that is wanted is the proper knowledge of their different habits and requisites. A good soil, rather dry than wet, and never shallow; proper attention paid to remove ill weeds, and to restore the constituents of the soil, if exhausted; a regular pruning to remove useless or crowded branches and shoots, is all that is required.

Many persons have been disgusted with the cultivation of the Pear, because they had not the thrifty, prolific and hardy varieties, or because they receive Quince budded

varieties which never do well on the quince,\* or old Pear root-grafted varieties of feeble habits and indifferent qualities. It is more than time that we suppress and reject all those worthless varieties from the old catalogues, in the infancy of Pear culture. New, hardy, fine varieties, either native or foreign, have been tested and are now generally superseding the old stock of Laquintinye and Duhamel. Therefore I would advise my Southern friends to give these new varieties a fair trial. Some, undoubtedly, will prove admirably suited to their climate. It is a known fact that generally the Pears are better in the middle States than they are in the East or in the North; and from all I have seen the Pear tree will not suffer by far so much under a temperature 110° above, as by 8° or 10° below zero.

The only objection against the Pear in the South is, that late or winter varieties do not prove to be late, but ripen in October and November, and of course that you have most all our latest ripening varieties, about the same time. But you are also earlier—I have received ripe Pears from Georgia when in Jersey and Pennsylvania there was no such thing as the appearance of a ripening Pear.

However, this does not seem to be a serious objection, since we must consider a fruit best when most useful, and that is undoubtedly during the heat of the summer.—Through part of the month of June, till November at least, you can and must have a succession of good Pears. And I believe I am not far from the truth when I think that winter Pears, comparatively valueless here as table Pears, will prove actual desiderata for the South. Such are:—Leon Leclerc (de Laval); Poire Prevost; Beurre Bretonneau, Passetardive, Souverainede Printemps and others. Among the last new foreign varieties we have many winter fruits. As far as tested the trees of some of those varieties have proved hardy and sound through a winter 8° below zero, and a summer of 100° in the shade. A fair trial indeed for the first year of their introduction.

And this is a good promise of their future success. For, when a variety is not suited to the climate it is first shown by the weakness, cracking and blistering of the tree, and no cultivation, care or manuring can infuse health and vigor in a plant not destined by nature to grow in extremes of heat, drouth or cold.

If I was not afraid of my remarks extending so far, I would like to impress every amateur or planter with the necessity of paying due attention to the planting of the tree and the selection of the variety. A tree destined to yield crops and to remain in the same place for half a century or more is well worth one hour of labor and attention. One hour's labor will bring the soil to the proper depth, the tree to its equilibrium between branches and roots, and have it placed in the best condition, (with the extension of all its sound roots,) where it has to grow, and remunerate the skillful planter.

The next thing I would recommend is protection.—If the tree suckers and lingers the first season, it is often lost and always injured to a great extent. It will never do as well as a tree starting fairly after its removal and its unavoidable mutilations. The first season after planting is a season of great trial. After that a tree will take better care of itself, with the aid of a good intelligent pruning-knife.

But the all important thing is the selection of thrifty growers. *Mens sana in corpore sano* can be applied to fruit trees also—a good healthy fruit upon a sound vigorous tree. Such a tree will stand the climate, neglect and ill treatment and still yield sound and good fruit, when a

\*We do not quite understand this, but our obliging correspondent will, probably, explain its meaning in future communications which, we are happy to say, he has promised us.—E. S.



feeble variety, under the same circumstances, will dwindle to nothing and never produce a perfect fruit.

If desired, sirs, I can send you a list of varieties which I have no doubt will all do well in your climate, and send you the grafts of the new or untested ones for further trial. You will soon find out, in your happy climate, which are the most promising varieties. Let us always bear in mind that the excellency of a fruit does not entitle it to be on the list of the very best unless every body can grow it under ordinary circumstances, and that depends altogether upon the vigor of the tree. For myself, I prefer a fruit of very good quality to a best one, if the first be more prolific, more thriving, more hardy, and better suited to all kinds of soil. This is what I should call market varieties. Although the market now is very poor in such fruit, it is as easily to be obtained, however, as many worthless cider fruit. Perhaps I shall not see it, but I hope the day may soon come when every laborer, as well as the wealthy, shall be able to consume good Pears.

In taking up the Pear Culture much later than the Eastern States, you at least possess one great advantage over these. You will not have to go through endless, discouraging trials, to reject worthless things, find out synonyms, &c., &c. You can start with a stock of tested, or at least very promising and vigorous varieties. I have not the least doubt some varieties will prove superior in quality, and most suited to your climate. You have fine soils, plenty of elbow room, and enterprising men who soon will make the Pear a popular fruit for the South.

L E B.

New Jersey, Dec., 1856.

#### GRAPE GROWING AND WINE.

EDITORS SOUTHERN CULTIVATOR—I was pleased to see, in your September number, by Mr. BUCHANAN and your Carolina correspondent, the rebuke given to extravagant estimates of grape culture. For, though Mr. AXI, in your October number, vindicates his calculations by good authority, yet I think it is "too soon to hallo, for we are not yet out of the woods." It is true, the experiments in Georgia have been very encouraging, so far; but they have been too few in numbers and years to rely on. Besides, we have not yet made wine. We have reason to apprehend difficulties on that score. Our grapes ripen in the hot season, say 1st September, and I doubt that the temperature may be found too high for making good wine. If we succeed according to Mr. AXI's estimates, our slave labor will soon glut the market so as to bring down the price as it is in Europe. Cheap wines can often be had there, I believe, for 20 or 25 cents per gallon, perhaps less.

I am planting the vine, but not with an expectation of averaging over half of Mr. AXI's estimates. I shall be well satisfied to make half, and write this to warn others to be moderate in their views, so as not to be crying humbug if they should not have their estimated success.

CAUTION.

Middle Georgia, 1856.

#### THE MOST EXTRAORDINARY COTTON IN the World!

EDITORS SOUTHERN CULTIVATOR—I have, *actually*, the most extraordinary stalk of cotton in the world, say two hundred open bolls before the early frost in September, 1856. This stalk is about six feet high and at each joint on the main stalk from two to three limbs put forth, and at each joint on the limb a boll and limb with from two to three bolls each on this last limb, making commonly from three to four bolls at a joint. At one limb joint I have three bolls, and two limbs with each three bolls, making nine bolls to the joints. One limb has matured

and opened twenty bolls by the 1st day of October, and all large and sound. With this seed I am of the opinion cotton can be raised much farther North and South, as it matures so early and is thought to be the cotton for South Louisiana and Texas, to avoid the boll worm; and also for Tennessee, North Carolina and Indiana Territory west and northwest of Arkansas, to avoid early frost, and the other Southern States, for an extra early crop. I am in latitude 34°.

J. L. GOSPE, M.D.

South Bend, Ark., 1856.

P. S.—Should you or any of our friends desire to hear more about this cotton privately, you can do so by addressing R. H. DOUGLASS, South Bend, or WM. WALDRON, Cummins, as also ALEX. DONELSON.

[See advertisement and certificates on another page, in present number.]

#### POMOLOGICAL SOCIETY OF GEORGIA.

##### CONSTITUTION.

ART. 1st. This Association shall be named the Pomological Society of Georgia.

ART. 2nd. Its object shall be the advancement of Fruit Culture and the science of Pomology generally.

ART. 3rd. Any person may become a member of this society by paying into the treasury the sum of one dollar annually. The payment of ten dollars or more will constitute a life membership thereof.

ART. 4th. The officers of the Society shall consist of a President, Vice-President, Secretary and Treasurer, to be elected by ballot at each annual meeting. These shall constitute the Executive Committee, who shall have the general management of the affairs of the Society during its recess.

ART. 5th. There shall be an ad-interim committee of five also appointed by ballot to examine and report on any specimens of fruit worthy of notice submitted to them in the intervals between the meetings of the society.

ART. 6th. The Constitution may be amended at any Regular Meeting of the Society, notice of the proposed amendment having been previously given.

##### BY LAWS.

1st. The Annual Meeting of the Society shall be held at Athens on the Tuesday of the commencement week of the University. Another meeting shall be held yearly in connection with the Southern Central Agricultural Society, on the second day of its annual Fair, at each of which times an exhibition and discussion of fruits shall take place and other business be transacted.

2nd. No member in arrears for dues shall be eligible to any office, and for continued neglect shall cease to enjoy the privileges of membership.

3rd. Distinguished Pomologists beyond the limits of the State may, from time to time, be elected honorary and corresponding members thereof, and enjoy the privileges of membership without the payment of the annual fee.

WM. N. WHITE, *Secretary*, Athens, Ga.

#### THE GRAPE CROP OF 1856.

We have received, says the *Journal of Commerce*, the following statement from one of the most eminent vine growers of the Ohio valley. His remarks with reference to the vintage of this year, and especially the adaptation of our Southern States to grape growing, will be read with interest:

The grape crop in the Ohio valley this year was a very small one—probably not more than an average of 80 to 100 gallons to the acre. The severe winter injured many of the vineyards seriously. Some of the vines were killed down to the ground, and about half the buds in others

were destroyed. The "rot" or mildew also injured some of the vineyards much. But a bad season with the grape, like other fruits must be expected to occur occasionally. Our experience thus far has proved that the grape is about as reliable a crop as the apple, and perhaps more so.

A fair average crop for a series of years is found to be 260 to 300 gallons to the acre, in well cultivated vineyards in the Ohio valley. The cost of producing this crop will not exceed \$50 to \$60 per acre, and less with proper economy. We plant the vines usually 3 by 6 feet apart in the rows, and an acre will contain 2,420 vines. Warm hill sides, or the tops of hills, are generally selected for vineyards. Any undulating land is preferable to level, as it affords better drainage. The grape wants porous soil, with good under-drainage. A tenacious, wet sub-soil, or blue clay, or hard pan, will cause mildew and rot after the fourth or fifth year, and should be avoided.

This cultivation is largely on the increase all over the west and southwest, wherever the conditions are supposed to be favorable, and the consumption of the wine is fully equal to the production.

Thirteen years ago, when the writer commenced planting, the price of wine was lower than it is now. It was also inferior in quality to that made since, and but little known. Now the character of our native wines is well established, and those who have acquired a taste for them will use no others. Their cheapness and their purity have helped to introduce them into general use in some sections of the country, and the failure of the grape crops in Europe will add to the demand for them. Viewed in every aspect—moral and economical—our native wines may be considered a most valuable addition to the agricultural products of our country.

It is now estimated that there is in vineyard culture over 4000 acres in the Ohio valley. About half this quantity is in the vicinity of Cincinnati, and probably three-fourths are now bearing. In the Missouri Valley there are 700 to 800 acres; and in the Upper Mississippi Valley 500 to 600 acres.

In Tennessee, Alabama, South Carolina and Georgia, several vineyards of the Catawba grape have lately been planted, with flattering prospects, thus far, of producing far better crops than those of the Ohio Valley. How they will hold out, has yet to be tested. The mildew and rot, our great enemies in vineyard culture, seldom trouble the first two or three crops, but I have little doubt that the uplands of North Carolina and Georgia will be found more favorable to the cultivation of the Catawba grape than any section of the United States.

#### FRUIT GROWING IN THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—In looking over the back numbers of your valuable paper I noticed two articles which I cannot refrain from answering, although as far back as the Tenth and Eleventh Volumes; but believing there is a large portion who keep the *Cultivator* as a reference upon subjects pertaining to Agriculture and Horticulture; and knowing if any one follows after the precepts advocated in those articles they will experience a fruitless disappointment. I also want it strictly understood that it is no self-interest which prompts me to write this article, neither do I wish to enter in a quarrel with any of the correspondents of a paper I so devotedly love, as I do the *Southern Cultivator*.

The article in the Tenth volume is headed "Fruit Culture," and signed M. W. PHILIPS, in which he says: "the impression has long gone abroad, that fruit trees worked at the North, will not do here, neither will they bear or live long. A parcel of stuff about naturalizing or acclimatizing, or some other intangible matter. This is all flummery."

Let us look into this matter and see if this is "all flum-

mary" or not. I will first mention that I have devoted a large portion of this season to visiting orchards in this vicinity, making observations upon this subject, and as there has been vast quantities of Northern trees sold in this and the adjoining parishes within the last few years, it has afforded me opportunities for making many observations, and in not one case have I yet found the Northern tree one half so sure to bear as the Southern raised tree, when worked with a variety of peach of Southern origin.

A few weeks ago I visited a peach orchard which covered 100 acres of land, the proprietor having two years ago cleared 200 acres, which was also covered with peach trees. This orchard when at its height, consisted of 5,500 trees, and covered 300 acres of land. I asked the gentleman who resided upon the place, why the trees were cut down. He informed me that there had been only two crops gathered in ten years. I then asked him where he procured the varieties of peaches. He said they were the choicest varieties the North could produce, worked upon Southern stocks.

I travelled in every portion of the orchard, examined the trees, tasted the fruit, and in six among eight I found a worm, and a large portion far inferior to the same varieties when grown at the North. Many of the trees were dead, the remainder had a sickly appearance and were evidently following the same road, while in the same orchard a portion of trees which were worked with varieties of Southern origin, looked thrifty and sound, and the gentleman informed me they would mature their fruit, when the Northern varieties would, when they did blossom, drop every one.

Two miles from this orchard is another which I visited; it covered five acres, the varieties all Southern origin. The land appears the same, and no better protected in any way, shape or manner. The proprietor informed me that the trees produce a good crop nearly every year. The trees were large, thrifty, sound and completely covered with fruit free from worms, beautiful in appearance, and equal in flavor to either of the Crawfords, the President, George the Fourth or Buckeye, (the three last were three among seven varieties, which took the premium at the Ohio State Fair in 1855, as being the best in cultivation.)

About one mile from this last named orchard is another, which covered 25 acres of land, the varieties nearly all Northern, the buds having been cut from the trees of the first named orchard. The trees will not compare at all with those in the second named orchard, in size or soundness, and the proprietor informed me that they produced a crop once in five or six years.

I also visited two more orchards situated one and two miles from the last mentioned one. The varieties all of Southern origin. One covered seven and the other eight acres. The proprietor said the trees produced a crop every year, but some years more than others, that they always had peaches enough for their own use, marketed some, and fattened pigs enough on the peaches which dropped off the trees to pay for cultivating them.

Let us see what Mr. LONGWORTH, of Cincinnati, says about foreign varieties of grapes, for if the change of climate affects grapes, I certainly do not see why it will not affect other varieties of fruit. He says:—"I have expended \$10,000 for foreign varieties of vines, have received them from nearly all the wine-producing districts of Europe, and have not in one instance yet found a variety adapted to our soil and climate. I consider them utterly worthless."

If the difference between the soil and climate of Ohio compared with that of Europe, exercises such marked influence upon fruit brought from Europe to Ohio, it seems very strange to me, if the difference between the Northern and Southern climate does not exercise as much, if not

greater influence upon fruit trees which are brought 600, 800 or 1000 miles nearer the equator.

The article in the Eleventh volume of *Southern Cultivator*, which I refer to, is headed "Acclimated Fruit Trees, &c.," and signed "Plebs," in which the writer says:—"After an experience with trees in the South for 20 years, of those brought from Baltimore and north of it, and after being conversant, in a limited degree, with fruits for 35 years, I am unwilling to see my friends and neighbors pay two prices to any man, on a flimsy pretence of acclimation."

As far as the honesty of Southern nurserymen is concerned, I will only say: I think them just as honest in their dealings as Northern nurserymen are; they might in former years have asked rather high prices for their trees, but those wishing to buy trees can find plenty of nurserymen in the South, who will sell better trees, at as low prices, as well packed, and in far better condition when delivered than any Northern nurseryman can possibly do; but there is one thing the public must learn, viz: the man who has made the fruit business his study for years, read volumes after volumes of works devoted exclusively to horticulture, and edited by the most eminent writers on both sides of the Atlantic, and learned how to perform the many scientific operations upon fruit trees, who has served a number of years as apprentice to the nursery business, and can join the scientific with the practical, got only by experience and observation, I say, when Planters, Lawyers or Doctors learn that they do not know as much about the cultivation, and management of fruit trees as a thorough bred nurseryman, then there will cease to be such a difference of opinion on this important question.

The days the writer of this article has lived will not number as many as those of Mr. Plebs' experience, but he has devoted a large portion of them to the study of horticulture, besides performing many a hard day's work in different nurseries; he does not presume to be perfect, for the more he learns the more he sees there is to learn, but he fancies he has learned one thing, viz: if the difference between the climate where a certain variety of fruit originated and the climate to which that fruit tree is taken, does not exercise any perceptible influence upon that tree, it certainly does exercise a marked influence upon the fruitfulness of that tree and the quality of that fruit. It is the fruit more than the tree which has to become adapted to a different climate. Every year's experience teaches us that no fruit can be grown as near perfection out of the latitude as it can in the latitude where it originated. Mr. Plebs says: "he shall require the say-so of more than one, or one dozen who are interested."

Permit me to quote a few lines from Mr. P. BARRY'S address delivered to the Fruit Growers' Association, Burlington, Iowa. Mr. B. is well known among the Horticultural community, and is considered as good authority as we have in America, having been engaged in the nursery business for the last 19 years at Rochester, N. Y. He says:

"My advice to you, here in the West, is to sow every good seed you can get. I mean the seed of those fruit which succeed best here."

Again in the same address he says:—"No other fact connected with fruit culture is more fully substantiated by every day's experience than this, viz: To insure successful cultivation we must have varieties that are adapted to the peculiarities of our soil and climate. Many of your most valuable apples for this country prove utterly worthless with us, while many of our best fruits fail entirely with you. This Society and others of similar character are collecting information on this subject of the highest value. The fact is well established that the fruit which succeeds best in particular localities are those which originated there, or in others slightly different. I

believe the Baldwin, Hubbardson Nonsuch, and Porter apples are nowhere quite so good as in New England. The Newtown Pippin, Swaar, Esopus, Spitzenburg; and Northern Spy, are scarcely anywhere so good as in New York. Our Northern Apples are of little value in the South, and the very finest Southern Apples are utterly worthless in the North."

The above coincides with observations I have made in the Eastern, Northern and Western States. The Rambo grows nearer perfection in Pennsylvania than in Ohio, while the Northern Spy is a very uncertain apple in Vermont and New Hampshire.

I believe the South would have been far in advance of the North in raising fruits, at the present day, if the inhabitants of the South had given the attention the importance of this question merits and demands; but it is pleasing to witness the spirit which has been awakened within the last four years. The reformation has commenced—the South is beginning to see the advantage gained in planting Southern raised trees. Pomological Societies have been formed and are still forming; search has been made over some portions of the South and the labor rewarded by some of as choice varieties of Apples as the North have produced. The dawning of these good days is already perceptible; several bright stars are already glittering in the catalogues of the different Southern nurserymen. The South can now unfurl its banner to the breeze and show a large number of as choice varieties of Apples and Peaches, also, a few Pears and Plums, as the North has ever produced.

Some might say the varieties are numerous enough. To those I would say, the South covers a broad area and will, therefore, require an extensive Catalogue to suit the different soils and situations. Let not the good work stop.

I would advise the lovers of good fruit to plant every good fruit seed they can get, and in the fall before the leaves drop select every "sport" which can be very easily distinguished by the thick velvety and glossy foliage. You can drive a stick by them and in winter graft them upon bearing trees. In two or three years you can test the quality of fruit. We have a seed bed containing several thousand seedlings in which I have selected every "sport." We might not get one good variety, but we can reasonably expect several. If they prove good, Messrs. Editors, it will afford me the greatest pleasure to send you a box of choice Southern Seedling Apples. If there are any at the present day who believes the Northern tree will grow as well, live as long, and bear as well as the Southern raised tree, I invite them to pay me a visit, and I will show them the Northern and Southern trees standing side by side.

Yours respectfully,

J. W. FELT.

Bayou Sara, La., 1856.

#### SOUTHERN VINEYARDS.

EDITORS SOUTHERN CULTIVATOR—I am greatly pleased to see that Southern Pomologists are beginning to take more interest in the vine. If I am not greatly misinformed in relation to the soil and climate of South Carolina, North Carolina and Georgia, &c., particularly on the more elevated parts of those States, they ought and I trust soon will produce wine equal to any country and far superior to the best of the imported.

There are undoubtedly many wild varieties of grapes yet to be discovered, or at least brought into cultivation, that will rival and surpass any we yet know of native kinds, and it is useless to cumber the grounds with the foreign grape, as they have been fully tested and in all cases found unsuitable—mildew ruins them.

I am experimenting with raising seedlings, and am trying to procure seeds of all the natives that are promising.

J. B. G.

Columbia, Pa., 1856.

## DWARF PEARS.

EDITORS SOUTHERN CULTIVATOR—Dwarf Pears are not what the name indicates. The tree only is dwarf in its habit. The fruit suffers no diminution in size, but on the contrary many kinds of Pears are much improved by budding or grafting on the Quince. The habit of the tree is diminished in size and brought into earlier bearing budded or grafted on the Thorn, Mountain Ash or Quince. The latter, however, has been found most desirable and better adapted on account of its thrifty habit, and is now the only one used to any extent for this purpose.

The ordinary Quince now generally in use in our gardens does not answer for this purpose, and when used gives but poor satisfaction from its slow growth and inferior fruit, and is never used by nurserymen of any reputation.

The kind used is a hybrid called Angers, from France, and also one called Orleans, both having large roots and growing rapidly and to a good size and fully adapted for this purpose, and are the only ones that will fully repay the amateur for his experiments. These trees from their diminutive size are most admirably adapted to gardens and other small spaces too limited for the ordinary Standard Apple and Pear, and when fully grown will measure fifteen feet high and bear from 3 to 5 bushels of fruit annually. The finest Pear sent into the Eastern fairs are said to have been grown on these trees. The tree as an ornament may be trimmed or trained quenouille, pyramid or half standard, or in any form almost the fancy may dictate, at very slight expense of time or labor. In our estimation we know not of a more magnificent or imposing sight than one of these trees neatly trimmed and in full bloom or fruit. We have had the pleasure during the past season of regaling ourselves by plucking from the trees in question some excellent Madeleines, Bartletts, & Angoulemes, Diels, &c., and we must admit that we now consider their presence indispensable among our collection. We had often, in looking over Downing and others, seen Pears designated as melting, juicy, buttery, &c, all of which we read with credulity until the past summer; and would then, we think, have added a few more words of praise had we written the book and had a dish of the fruit to have discussed over during the operation.

POMONA.

Mississippi, Nov., 1856.

## FRUITS FOR THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—I enclose you descriptions of a few choice fruits tested by me last season:

*The Champagne Grape.*—This is unquestionably one of the finest table-grapes, and is for that purpose cultivated largely about Paris, in France. It is one of the few European grapes which I can recommend for the South, as it for the last six years has succeeded admirably, and produced finely here with me. Bunches of middling size, shouldered; berries round, not very close set; skin green, turning yellow, and half transparent when fully ripe. Ripens here by July 15th.

*Frankenthal* is another European grape, a native of the "Rhine," and perfectly adapted to our climate. Bunches close, berries round, skin deep black, covered with a blue bloom; very sweet, juicy, and high flavored.

Both of these varieties are very productive, and satisfied with any treatment. They prefer a good rich loam, and not to be exposed to the sun. The *Frankenthal* is often considered identical with the "Black Hamburgh," but is entirely different from it, and much better suited to our climate. Ripe middle of July. I confidently can recommend the above kinds as a decided acquisition to Southern agriculture.

*Canary.*—This delicious peach originated here from the seed of the "Yellow Rareri," impregnated with the

pollen of the "Red Rareri," and the "Moorpark" apricot. It produced fruit last summer for the first time, and I expect you will agree with me in calling it a delicious fruit, though you would find it much finer, if you could pull it, perfectly ripe, from the tree. Fruit medium size, very regular oblong, with a small but acute projecting point, and a very slight suture. Skin beautiful canary yellow, very thin, and rarely tinged with a faint blush on the sunny side. Flesh exceedingly juicy, with a high vinous and peculiar flavor, resembling the flavor of a rich apricot. Ripe by the middle of July. Freestone. Rather delicate for market.

*Early Green Catharine.*—Entirely different from the well known *Catharine* Cling peach. Fruit round, very little inclined to oval, skin creamy white, slightly tinged with carmine on the sunny side. Flesh white, luscious and sweet, and rather firm, which makes it a very desirable variety for market.

Plums were splendid last season, as you saw by the samples sent Washington, Jefferson, Duane's Purple, Columbia, Imperial Gage, and many others, have been superior, and generally admired.

Notwithstanding that the season was unfavorable to the perfect development of peaches, you will probably admit that the "Flewellen" peach is a first rate variety.

ROBERT NELSON.

Augusta, Geo., Dec., 1856.

## SAVING PEA VINE HAY--THE CHINA Prolific Pea.

EDITORS SOUTHERN CULTIVATOR—In the October number of the *Cultivator*, I notice a communicated from "T. C. C." in which he complains that he can find no suitable substitute for fodder, much as he objects to the loss of time and corn involved in pulling it. He says he has found it impossible to gather and cure pea-hay so that his horses would eat it, even after several days sunning. I think he would find it an advantage to pursue a plan introduced into our neighborhood by Dr. GOREE, which is, to plant the peas in ridges four or five feet apart, after he has taken off his oat crop. Just before frost he has the vines pulled up and thrown into "win rows." After it has taken one day's sun, and before the leaves get dry enough to crumble he has the rows chopped in two every ten or twenty feet (depending upon the amount of vine) then loaded on a wagon, and driven to a convenient place for stacks, which are made by setting up posts fifteen or twenty feet in height, well imbedded, and having holes bored with a two inch auger every two feet, through which are thrust strong poles extending five or six feet on each side. On these are hung the vines, from bottom to top. The stock should be thatched with oat or other straw, and suffered to remain untouched for a month; when he will find a rich, sweet food that will keep his horses and mules (unless at work) perfectly fit without the assistance of other food.

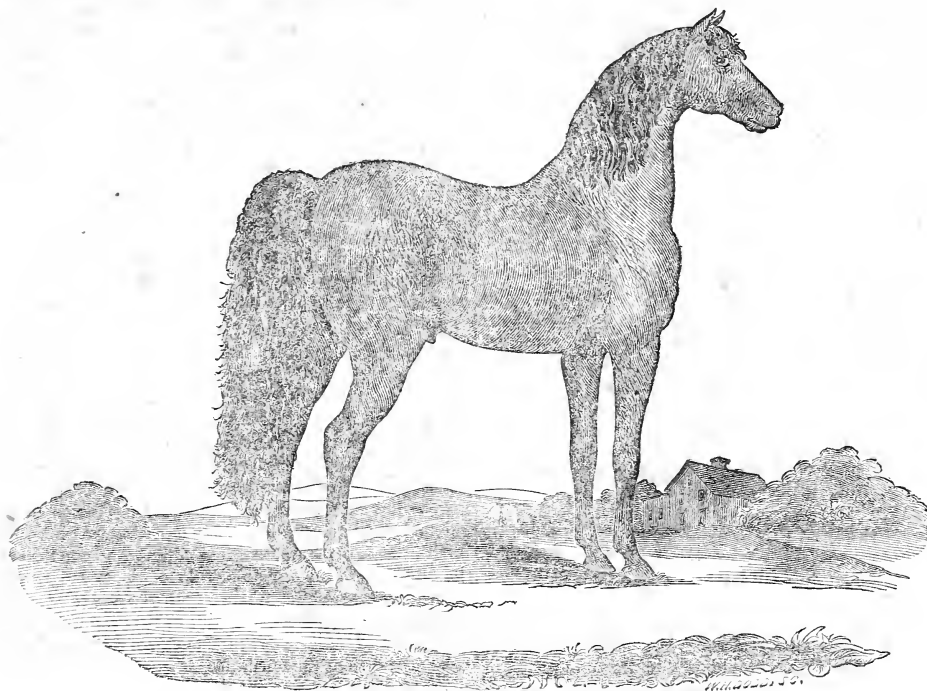
Another plan which we find successful is to put the vines in rail pens, having after each load two or three rails thrust through from one side to the other, so that the next load may partially rest upon them; in this way, admitting a free circulation of air. "T. C. C." will find by adopting this plan that his most fastidious horses will willingly eat pea hay.

Mr. WM. F. DOUGLASS, of this county, is this year planting "China pea," which I think should supersede the use of every other. I have noticed his crop from time to time during the season, and must say I have never seen anything to equal it. I shall plant no other next year, so well satisfied am I of its superiority.

W. R.

South Bend, Ark., Oct., 1856.

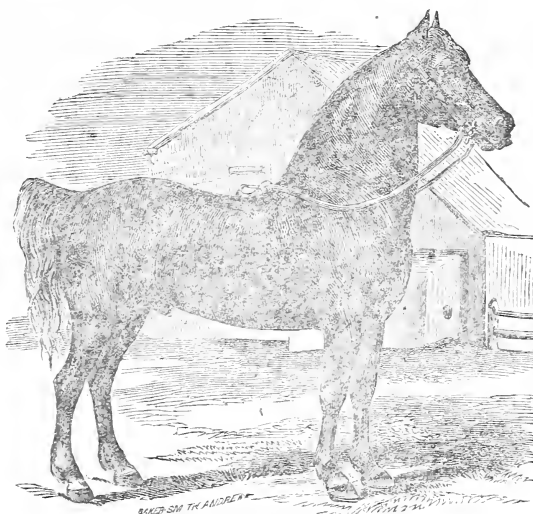
WE copy the following from the new work on MORGAN HORSES, just published by C. M. Saxton & Co., and noticed in our December number, last volume, page 375:



**NORTH STAR.**

North Star was foaled the property of David Lincoln, of Greenwich, Mass. Sired by Morgan Emperor, g. sire, Bulrush, g. g. sire, Justin Morgan. Dam, a bay. He took the second premium at the National Fair at Springfield,

Mass., 1854. He is a bright bay; weighs 1,000 lbs.; black and curly mane and tail. He is a very symmetrical, well-shaped horse, with fine bold style and excellent action; and is now owned by Henry Olmstead, East Hartford, Conn.



**GREEN MOUNTAIN 2d**

Green Mountain 2d was foaled in 1834, the property of George Bundy. Sired by Gilford, g. sire Woodbury, g. g. sire Justin Morgan. Dam sired by Woodbury, a dark bay mare of great beauty and action. This horse is 14½ hands high, and weighs 1,100 lbs.; color deep bay. Mr.

Bundy sold him, when four months old, to Daniel Gay, of Stockbridge, Vt., who kept him till he was four years old, and sold him to Hiram Twitchell, of Bethel, Vt., and he sold him the same year to John Woodbury, of Bethel, Vt. Mr. Woodbury sold him to Silas Hale, of South Royalston,



Mass., who kept him till 1855, when he sold him to a stock company in Williamstown, Vt., where he is now owned. Mr. Hale took him West in 1853, and he received first premiums at the several State Fairs of Kentucky, Ohio and Michigan, and in 1854 he received the first premium at the Vermont State Fair, at Brattleboro.' He has also taken several other premiums. He is a horse of great muscular development, and remarkably nervous, spirited action.

#### TALL COTTON PICKING.

THE Vicksburg (Miss.) *Whig*, of a late date has the following:

VILLA VISTA PLANTATION, NOV. 24, 1756.

Mr. Editor—Beat this who can! Four negro men and two girls picked, on Wm. Hawes Harris' plantation, 7,750 lbs., of cotton, commencing at daylight and quitting at sunset. L. Henry, 1,560 lbs.; Arthur, 1,235 lbs.; George, 1,200 lbs.; Abner, 1,415 lbs.; Eleanor, 1,150 lbs., and L. Betsey, 1,190 lbs. They have been picking at this rate for the last ten days.

L. J. PHILIPS,

Manager of V. V. Plantation.

#### "THE ART AND PRINCIPLES OF SOAP Making."

EDITORS SOUTHERN CULTIVATOR: In your remarks under the above head, May No., 1856, page 163, I think the minds of your readers are liable to be misled. If I am wrong, I shall be glad to get right.

You say, "water slowly decomposes soap." Is it not the *lime* and *salts* in the water which decompose the soap? My daily experience shows me that one pound of hard white soda soap, combined with ten pints of water, (free from lime and salts,) keeps for a length of time without at all losing its solubility. All soaps contain water in greater or less amount, and keep for years without appreciable deterioration in quality. It is foreign matters in the water, then, which decompose the soap, and not water itself.

You say, "because the oil or grease seems to neutralize, in the first place, and mask in the second, the too intense causticity of the alkalies named." Does not carbonic acid fulfill amply the two indications named, (neutralize and mask the causticity,) as well as the fat? Why remove, with so much care, the carbonic acid from the alkali, and supply its place with the fatty acids? Soap is certainly something more than a caustic alkali deprived of its causticity. Nor is it simply grease deprived of its greasiness. It is a true chemical compound, having, *visu generis*, positive detergent properties, wholly distinct from those of its constituents. The property, when in dilute solution, of uniting readily with greases, constitutes its chief value. This property is not at all characteristic of either caustic or carbonated alkalies, else we should find no difficulty in the very ready manufacture of soap under almost any conditions. The alkalies, to unite properly with grease, must be concentrated, and hence do violence to the cloth as well as to the hands of the laundress.

You say, "But since commercial soaps are so shamelessly adulterated." Adulterated with what? *Pereira* says, "with excess of water, lime, gypsum or pipe-clay." Water is the only adulteration I have ever met with—and this in no wise injures the *quality* of the article as a detergent.

You say, "We never saw any one weigh either potash, ley, grease or oil, in making soap." Surely, it is a very rational proceeding with a new beginner,, especially if potash is used.

You say, "Adding a saturated solution of caustic lime, as long as any precipitate falls in the ley." It seems a needless waste of time and fuel to add so large a quantity

of water as would be required to dissolve the requisite amount of lime. If the potash be in the state of proto-carbonate, every ten pounds will require at least six pounds of lime in a caustic state. The U. S. Dispensary informs us that one pint of water at 60° dissolves 9 7-10 grains of lime. *Pereira* says 11 6-10. Now, if we assume 11 grains, we shall require *four hundred and seventy-one* gallons of lime-water to render caustic *ten pounds* of potash. A bulk altogether too large to be evaporated for the recovery of so small a quantity of alkali. Your previous remark, "unless you prefer to throw it away," is well put in.

You say, "Hence, the simple addition of salt will often solidify soap, (forming, in part, a soda soap,)" &c. Does not the addition of salt in sufficient quantity, to potash soap, such as you describe, *always* solidify soap? And does it not form *in toto* a soda soap? So say the authorities.

You say, "One pound of such soap is worth many pounds of the insoluble, filthy, resinous stuff sold for washing purposes." If reference is had to the brown turpentine soap usually sold, I must differ with the opinion expressed. My own observation is, that good turpentine soap is a most excellent detergent. It unites with grease with remarkable facility, and by the friction which it induces, greatly promotes the cleansing of cloth, while a pure tallow or oil soap causes the folds of cloth to glide smoothly and quickly over each other, so that little or no motion takes place in the fibres of the cloth, and the removal of dirt from the interstices is thus retarded. Good house-wives always add rosin or turpentine in their soap-boiling, for the improved quality of the soap thus yielded. You certainly, Messrs. Editors, have not had much practical experience at the wash-tub, or you would not speak so harshly of rosin soap.

You say, "Neither rosin nor any of its feeble acids ever become rancid; and therefore, says Knapp," &c. I think you certainly mistake the *ground* upon which Knapp makes his assertion, and I apprehend *he* is in error, as the weight of chemical authority is against him. Indeed, he says himself, on the very next page, "rosin, in combination with either soda or potash, *forms by itself a soft soap*." The technical point aside, every house-keeper knows practically that rosin *does* make soap, and a first rate washing soap can't be made without it. I remark, in conclusion, rosin is one of the constituents of the "English Honey Soap," so celebrated for toilet use, which took the medal at the London Exhibition.

R. B.

[The strictures of our correspondent refer to an article published in our last volume, page 163. The senior Editor (who wrote that article) will reply in good time.]

HAIR OIL FOR HORSES.—Immense fortunes have been realized in the manufacture of *Hair Oil* for the *Lords* and *Ladies* of creation. But here is a recipe for the manufacture of *hair oil*, said to be successful in promoting the growth of *horse hair*, rendering it *pliable* and *glossy*. We give the technical formulæ of the prescription:

R.—Take

Brushus et currycomus.....ad libitum.  
Elbow greasus.....quantum suff.  
Blanketisus.....firstratus.  
Stablus.....warmus.  
Fodderus.....never say diet-us but meal us et oatus.  
Exercisus.....non compromissus.

The effect of the above is truly wonderful. It results in—

Coatus shinitus,

Appetitus wolfitus,

Muscularitus, two-forty-itus,

HORSE LATINUS.

## Advertisements.

**A. LONGETT,**

**DEALER in FERTILIZERS, No. 34 Cliff street, New York.**  
**PERUVIAN GUANO No. 1**—Government brand and weight on each bag. **COLUMBIAN GUANO**, imported by the Philadelphia Guano Company. **SUPERPHOSPHATE OF LIME** and **BONE DUST.** Jan57—3t

**IMPROVED SUPERPHOSPHATE OF LIME**, of the best brands, for sale by **A. LONGETT,** 34 Cliff street, New York. Jan57—3t

**COLUMBIAN GUANO**, imported by the Philadelphia Guano Company. **A. LONGETT, Agent,** New York. Jan57—3t

**AUGUSTA SEED STORE.**

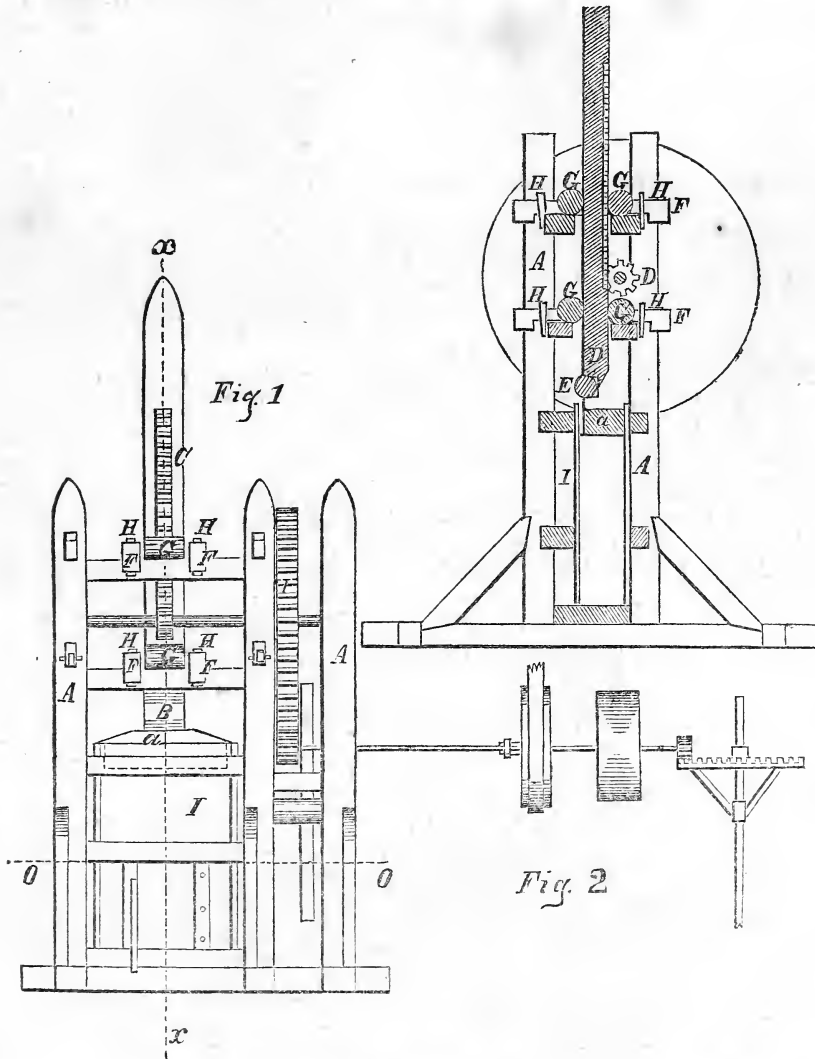
(Nearly opposite the United States and Globe Hotels.)

**THE** Subscriber has received and will continue to receive throughout the season, his stock of genuine and fresh **GARDEN SEEDS**—crop of 1865. The usual deductions made to country Merchants.

**J. H. SERVICE.**  
**GIANT ASPARAGUS ROOTS,** White and Red **ONION SETS,** White and Red **CLOVER, LUCERNE, BLUE GRASS, &c., &c.** Jan57—3t

**CHERRIES!—AMERICAN VARIETIES.**

**WE** can furnish a limited number of nearly all the *new* American varieties of **CHERRIES**, worked on the Mahaleb stock and especially suited to the South. Also, all the old approved kinds. Price, 50 cents each or \$40 per hundred. Address: Dec56—tf **D. REDMOND, Augusta, Ga.**

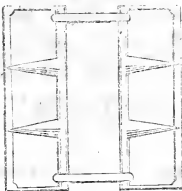
**GLOVER'S PATENT COTTON PRESS.**

Patented July 3rd, 1855.

**THE** above Press is designed for plantation use, and is the only one known that can be effectively worked inside the Gin House or Shed added thereto. As will be seen, it is a vertical Press and combines simplicity, durability and quickness of action. Being inside of the Gin-House, all handling of the Cotton is saved; the top of the box is a hole in the floor and the cotton is raked from the lint room and taken out down stairs a bale. Being above ground and under shelter it is not liable to decay. Its durability considered, the Press is much cheaper than the screw. One of these Presses has been in operation on my own Plantation for 3 years, giving general satisfaction. I also have one erected at the Foundry of Messrs. Ewan & Bro., Columbus and Nassau streets, Charleston, S. C., who will give any particular information wanted, and furnish single Presses promptly, whom please address. These Presses can be worked either by hand, horse and the power that drives the Gin.

Patent Right to States and Counties for sale. For purchase of Patent Rights address **A. M. Glover**, care of Moore & Glover, Charleston, S. C. For purchase of Single Presses address Messrs. Ewan & Bro., as above. Jan57—2t.

## PATENT BUCKLE.



I DESIRE to sell the Right of making and selling the new **DOUBLEJOINTED PATENT BUCKLE**, and will thankfully receive offers for it until the 1st day of June next. The Buckle is the best that has yet been invented, one answering for the whole wardrobe and should be made of gold or silver. The Right of one State is worth a fortune. I will sell the Right of one or all the States together.

WM. SLADE.

Gum Creek, Dooley Co., Ga., Nov. 24, 1856.

Jan 57—5t

## WHITES GARDENING FOR THE SOUTH.

A NEW Work by W. N. White, of Athens, Ga., containing directions for cultivating the Kitchen and Fruit Garden, with large and valuable lists of fruits and vegetables adapted to the Southern States, with Gardening Callanders for the same.

Price \$1.25, sent by mail, post paid, on receipt of Price.

C. M. SAXTON &amp; CO.,

Agricultural Book Publishers, 140 Fulton-st., New York.

Jan 57—2t

## DIOSCOREA BATATAS--NEW CHINESE Potato--or Yam.

THE experience of another season in the cultivation of this new esculent, warrants us in confirming all we said in relation to it last year. Wherever it has fallen into the hands of judicious cultivators, and received the care necessary to its full development, the result has been entirely satisfactory in all respects; and it may confidently be recommended that of all the esculents proposed as substitutes for the diseased potato, the *Dioscorea Batatas* is certainly the only important one. We can now supply small roots from 4 to 9 inches long, carefully packed for transport at \$3 per dozen; and small seed tubers (such as we sold last year) at \$1 per dozen to \$7 per hundred; these latter can be sent by mail. Description and directions for culture furnished with each package. Where practicable, parties are invited to examine the roots before purchasing, as we have them constantly on view.

NEW CHINESE NORTHERN SUGAR CANE.--Seed of this celebrated and invaluable plant in packets at 12½ cents each (prepaid by mail 25 cts.) 75 cents a pound.

CHUFAS or EARTH ALMOND--\$1 per 100.

JAPAN PEAS, 50 cts. a quart. NEW ORANGE WATER MELON (true), CHRISTIANA MUSK MELON; KING PHILIP CORN; SWEET GERMAN TURNIP, etc., etc., with the largest and most comprehensive assortment of VEGETABLE, FLOWER and FIELD SEEDS to be found in the United States.

Catalogues on application.

JAS. M. THORBURN &amp; CO.,

Seedsmen, &amp;c., 15 John st., New York.

Jan 57--2t

## THE MOST EXTRAORDINARY COTTON IN the World.

I HAVE for sale the earliest COTTON in the world, and will sell the seed at \$1 each or six seed for \$5, or the seed of the stalk now on hand say three thousand, for \$3,000. J. L. GOREE,

South Bend, Ark., 1856.

## CERTIFICATES.

I certify that I am doing business for Dr. Goree and have seen his communication of the 28th of November, and cheerfully certify that it is correct and not the least exaggerated. The cotton is either a new one or one I have never seen before, as I am very well acquainted with most of the new cottons of the present day. I believe this seed will open as early in latitude 34 as any seed I know will in latitude 32.

ALEX. DAVIDSON.

I certify that I have seen Dr. Goree's stalk of Cotton, and that it is all he describes it to be. It differs from the fine cotton of the present day by branching much more and every branch filled with bolls. I consider it an entire new cotton, and far more valuable than the best I have ever seen, and fully a month earlier than our earliest cotton and well suited, I should think, to the latitude of Tennessee and perhaps of Kentucky. It would not surprise me if this cotton does not more effectually than any thing else settle the stomachs of the Abolitionists. It certainly is a very extraordinary stalk, maturing so early so many bolls.

WILLIAM WALDRON.

At the request of our neighbor, Dr. Goree, we have examined the stalk of cotton described by him in a communication to the *Southern Cultivator*, and do cheerfully testify to the correctness of the general facts of his description, and believe them all to be correct.

ROBT. H. DOUGLASS.

[Mr. Douglass had not seen the cotton for two months, and it having been so long in the house, the children had pulled many bolls off and on the twenty boll limb it only had nineteen, and that is why he worded it as he did. The others saw it the next day after pulling.]

J. L. GOREE.]

[Jan 57--2t]

## PEABODY'S NEW SEEDLING STRAWBERRY.

THE SUBSCRIBER has originated a new Seedling STRAWBERRY, which combines more good qualities to make up a perfect berry than any ever yet introduced, viz: It is of the largest size, measuring six and seven inches in circumference; it is of beautiful form, attached to the calyx by a polished coral-like neck, without seeds; rich, deep crimson color; fruit borne on tall foot stalks, of the most exquisite pine flavor; flesh firm, melting and juicy; and bears transportation better than any Strawberry ever cultivated. (See engraving and description of the plant in the November No., last volume.)

I will be prepared to send the plant out, whenever the following terms are complied with. Not a plant of this variety has ever left my grounds, nor ever will, until the propositions below are subscribed to. I propose to get one thousand subscriptions at \$5 per dozen plants, throughout the whole country. Subscribers on forwarding their names, and post office address, with the number of dozen desired, will receive by return mail a beautiful colored plate of the vine and fruit, drawn from nature; and as soon as the thousand subscriptions are made up, I will notify each subscriber, when the money may be mailed to me, and I will put the plants up in moss, envelope them in oil silk, and forward them by mail. By this method they can be sent to any part of the Union with safety and despatch. I have sent packages of 100 of the common Strawberry 1,000 miles by mail, without the loss of a plant. Packages of one dozen will go through the mail as certainly as a letter.

Subscribers, on receiving the colored plates will please show their friends, that it may hasten the completion of the list. From one dozen plants, one thousand may be produced the first year. This plant is the hermaphrodite, always bearing perfect crops of fruit, without any impregnator.

Directions for the culture of this plant will be sent with each colored plate.

CHARLES A. PEABODY.

Columbus, Ga., Oct. 1, 1856.

As a proof of the keeping qualities of this new Strawberry, on the morning of the 9th of May last, [Friday,] I picked a case of the berries, took them to Columbus, six miles, in my buggy, sent them from Columbus to Savannah, three hundred miles by Railroad, and from Savannah to New York, nine hundred miles by steamer to my friends, Messrs. J. M. Thorburn & Co. The following extract from Messrs. Thorburn & Co.'s letter, will show the condition of the berries just one week after they were picked.

C. A. P.

New York, May 16th, 1856.

MR. CHARLES A. PEABODY--Dear Sir:--The Strawberries came to hand on the afternoon of Tuesday, sound and in very good condition, retaining an unusually strong Strawberry aroma. The berries have wilted down only a very little, up to this time, Friday morning, May 18th.

Yours truly,

Jan 57--4t

J. M. THORBURN &amp; CO

WYANDOT CORN.--Persons wishing to procure Seed of this new and most productive variety of Corn can be supplied by early application to

D. B. PLUMB &amp; CO.

Jan 57--1t

## "FRUITLAND NURSERY," AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has just issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing

D. REDMOND, Augusta, Ga.

Dec 56--4t

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next.

Dec 56--4t

RICHARD PETERS,

Atlanta, Ga.

## PURE AND VALUABLE SEEDS.

HAVING experienced the great difficulty in obtaining reliable FLOWER SEEDS, suitable to the South, I have raised a small quantity, which I have placed in the hands of D. B. Plumb & Co., Druggists, in this city, for retailing. I would particularly draw the attention of the ladies to the splendid collection of Sweet Gilly Flowers, Ten Weeks Stocks, Double Wall Flowers, and German Asters.

Dec 56--4t

ROBERT NELSON,

Augusta, Ga.

## BLACK ESSEX HOGS.

FOR SALE, a few of three to four months old, at \$20 per pair. For Essex, I consider this breed superior to any other they can be made to take the mange, and are free from cutaneous eruptions, a disease of the lungs, to which hogs are so liable when kept in dry pens in a Southern climate. Address

Nov 56--4t

R. PETERS, Atlanta, Ga.



## THE CHINESE PEA.

THE most PROLIFIC PEA known; well adapted to poor lands and yielding more to the amount planted and the acre than any other, by an hundred per cent. One pea planted yielding a half gallon, if allowed proper distance to spread. The peas growing in bunches, save great labor in gathering. The vines are eaten greedily by stock, and the pea is unsurpassed for the table in delicacy and richness of flavor.

Any one wishing them can have a package containing half a pint (from 6 to 7 ounces) sent per mail, postage paid, by remitting us \$1.30—(\$1 in current 3mths and 30 cents in postage stamps.) Any one not perfectly satisfied with the Pea will have his money returned. Address D. B. PLUMB & CO., Augusta, Ga.

For distant Agencies, address D. REDMOND, Augusta, Ga. Nov56-5t

## R. E. NORVELL,

AUCTION AND COMMISSION MERCHANT, AND DEALER IN MACHINERY AND AGRICULTURAL IMPLEMENTS, Huntsville, Ala Dec56-2t

## FRESH GARDEN SEEDS.

WE are now receiving our supply of choice GARDEN SEEDS, which we warrant to be GENUINE and of the crop of 1856. Those who purchase our seed may rely upon getting a fresh article as we keep no OLD seed on hand.

Merchants supplied at a liberal discount.

D. B. PLUMB & CO., Broad-st., Augusta, Ga. Nov56-4t

## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embraces the Deodar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vite; Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c., &c.; in short, all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address [Dec56-4t] D. REDMOND, Augusta, Ga.

## SELECT APPLES---SOUTHERN SEEDLING.

A CHOICE collection of Summer, Autumn and Winter APPLES—mostly Southern Seedlings, and all perfectly adapted to this climate for sale by the subscriber at 25 cents each, or \$20 per hundred. Address D. REDMOND, Augusta, Ga.

Descriptive Catalogues sent, per mail, free of postage. Dec56-4t

## PEACHES!--SOUTHERN SEEDLINGS.

THE very finest collection of PEACH TREES ever offered in the South, may now be obtained from "Fruitland." In addition to the well known and approved varieties of Europe and the North we have many new and exceedingly valuable Southern Seedlings found in no other collection, and furnishing a successful crop of fruit from the first of June until November. Price, 25 cents each, or \$20 per hundred. Descriptive Catalogues sent gratis per mail. Address D. REDMOND, Augusta, Ga. Dec56-4t

## PEARS FOR THE SOUTH!

STANDARD and DWARF PEARS, of the most approved varieties, finely rooted and well grown. Price 50 cents each, or \$40 per hundred.

The Pear, under proper cultivation, is much larger and finer here than at the North or in Europe, and the kinds I offer are among the very best. Descriptive Catalogues sent free of postage. Dec56-4t Address: D. REDMOND, Augusta, Ga.

## HEDGE PLANTS, BASKET WILLOWS, &amp;c.

OSAGE Orange, Macartney, Cherokee and other running ROSES for defensive and protective Hedges. Also, the Enonymus, Cape Jasmine, "Mock Orange," English Laurel and other beautiful Evergreens for Ornamental Hedges. Osier or Basket Willow cuttings, of the best varieties. Catalogues sent gratis. Address: D. REDMOND, Augusta, Ga. Dec56-4t

## GRAPES, STRAWBERRIES, MULEBERRIES, &amp;c., &amp;c.

ALL the finer varieties of native and foreign GRAPES—some of the former. For Vineyards, on reasonable terms by the quantity. Also, the finest collection of Strawberries in the South; Rochelle or Lawton BLACKBERRIES; varieties of the RASPBERRY, MULBERRY, &c., &c. See Descriptive Catalogue sent free of postage to all applicants. Address: D. REDMOND, Augusta, Ga. Dec56-4t

## GRADE CASHMERE COATS.

FOR SALE, a few half blood BUCKS at \$30 each. Address [Nov55-4t] R. PETERS, Atlanta, Ga.

## PLUMBS I!--FRUITLAND NURSERY!

ALL the most approved varieties of the PLUM on native seedling stocks, furnished to order. Also, full Catalogues of "Fruitland Nursery" mailed to applicants, free of postage. Dec56-4t Address: D. REDMOND, Augusta, Ga.

## AUGUSTA NURSERY.

## Extensive Collection of Selected Roses and Southern Raised Fruit Trees.

F. A. MAUGE would respectfully inform the amateurs of Roses, that he has now a superb collection of new and rare varieties, which he will be happy to supply such as may desire them. His prices to Nurserymen will be as low as those of any Nursery at the North, and his Rose Bushes will be generally of a larger size. He has also made recent additions to his stock of FRUIT TREES, and can now supply fine sorts of the following varieties: Apples, Pears, Quinces, Peaches, Nectarines, Apricots, Plums, Cherries, Soft Shell Almonds, English Walnuts, and Hazelnuts.

Also, GREEN-HOUSE PLANTS, such as Camelia Japonica, Orange and Lemon Trees, &c., and hardy Flowering and Ornamental Shrubs. Orders from the country will be promptly attended to, and Trees and Shrubs carefully packed and directed.

Osage Orange Fruit for sale at \$1 per dozen.

Catalogues of Roses and Fruit Trees will be sent gratis, to all post-paid letters. Address F. A. MAUGE, Augusta, Ga. Dec56-4t

## COTTON SEED.

1,000 BUSHELS—Olive—very pure. Price fifty cents a bushel at my gin, or forwarded to cash orders at fifty cents per sack extra. Also, 1,000 bushels "Crowder," equally pure and very productive, an early opener, growing and making till late. The young bolls do not dry up on the stalk, nor does it shed as other varieties do. Address DR. A. W. WASHBURN, Yazoo City, Mississippi. Nov56-6t

## BOYD'S EXTRA PROLIFIC COTTON SEED.

200 BUSHELS of BOYD'S EXTRA PROLIFIC COTTON SEED for sale in sacks from 1 to 5 bushels in a sack. Price \$1 per bushel JOHN M. TURNER, Augusta, Ga. Nov56-4t

## CARMICHAEL &amp; BEAN,

DEALERS IN HARDWARE, CUTLERY, and AGRICULTURAL IMPLEMENTS, Augusta, Ga.

We are, also, Agents for the following articles:--SALAMANDER SAFES, made by Stearns & Marvin, New York; LITTLE GIANT COIN and COB MILLS; Indian Rubber BELTING, PACKING and ROPE, made by Boston Belting Company; ATKINS' SELF RAKING REAPER; CIRCULAR SAWS, made by Hoe & Co., and Welch & Griffith's HORSE POWERS; FAN MILLS, THRESHERS and SMUT MACHINES, CARMICHAEL & BEAN, Augusta, Ga.

April56-Clty

## THOROUGH BRED NORTH DEVON AND Ayrshire Bulls.

I OFFER for sale a few choice young BULLS, bred from superior Stock, with full pedigrees. For particulars, address me at No. 23 Fulton street, New York City A. M. TREDWELL, Importer, Breeder and Dealer in North Devon and Ayrshire Cattle, Residence Madison, Morris county, New York. Dec56-3mo

## "SPEED THE PLOW."

IT is admitted by the best judges that WARLICKS' IMPROVED PLOW is the best implement of the kind now in use. It is a Southern invention, and is peculiarly adapted to agricultural purposes in the South. The best farmers of Alabama, Georgia and South Carolina, say it is the very thing they need. Its excellencies consist mainly in the following particulars:

1. It is the cheapest and most economical plow that can be used.
2. It is acknowledged to be the plow for subsoiling clay lands.
3. It is of lighter draft, and more easily managed by the hand than any other plow.
4. All the plows used in the South may be attached to the stock, and it is equally useful both for breaking up land and cultivating a crop.
5. It is not liable to choke in grassy or rough land.

Premiums were awarded to this Plow at Agricultural Fairs in four Southern States in 1855. Certificates of the most flattering kind could be appended if necessary. The best way, however, to test the truth of the above statements, is to try the plow.

Those wishing to purchase plows or to obtain a trial, or to obtain any information concerning it, will please address the subscriber, at Atlanta, Ga. For plowing in wheat in grassy lands this plow is far superior to all others. H. WILLIAMS, Atlanta, Ga., July 3, 1856. Aug. 1856-6t

## NECTARINES, APRICOTS, FIGS, &amp;c.

ALL the choicest varieties of the above; also, Pomegranates, Almonds, English Walnuts, &c., &c. Address: D. REDMOND, Augusta, Ga. Dec56-4t

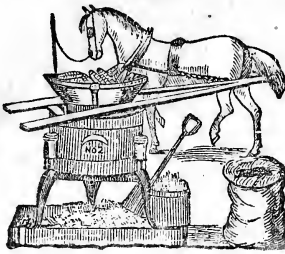
## EVERBLOOMING ROSES.

EMBRACING all the leading sorts of China, Tea, Bourbon, Noisette, Hybrid Perpetuals, &c. Also, a great variety of Spring Roses, Moss Roses, Banksian Roses, Climbers, &c., &c. All select, strong plants, grown on their own roots. Price 50 cents, or \$5 per dozen. Catalogues sent free of postage. Address: D. REDMOND, Augusta, Ga. Dec56-4t

## SHEEP FOR SALE.

ONE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS, of the Webb stock. June56-4t RICHARD PETERS, Atlanta, Ga.

## SCOTT'S LITTLE GIANT CORN AND COB MILL.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials, by SCOTT, MOCK-BEE & Co., under the immediate supervision of the Patentee.

CARMICHAEL & BEAN, GENERAL AGENTS, AUGUSTA, GEORGIA.

**THE ATTENTION OF PLANTERS** and Stock Feeders is respectfully called to this Mill, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being only necessary to fasten them down to a floor or platform, and for this purpose the requisite screws and a printed card of directions will accompany each Mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over-heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium wherever exhibited, and we confidently assert that in all respects it is unequalled. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance, with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These Mills are guaranteed against defects or breakage, when used according to the directions, and as evidence of their durability, a No. 2 Mill which has ground nine thousand bushels, and a No. 3 Mill which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold for \$50. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession official written and printed testimonials which will gladly exhibit to persons wanting Mills, showing and proving the superiority of the Little Giant over all others:

## TESTIMONIALS.

AUGUSTA, Ga., April 3d, 1855.

I have been running one of SCOTT'S LITTLE GIANT CORN AND COB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour, but I have ground over thirty-five bushels in an hour and a half, or equal to twenty-three and a half bushels per hour. In feeding thirty horses, I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of Crusher ever got up, and if I could not replace mine, I would not sell it for five hundred dollars.

I. D. MATHEWS,

Proprietor of the Augusta Omnibuses.

AUGUSTA, G., Oct. 1, 1856.

Messrs. CARMICHAEL & BEAN—*Gent*:—After having used the LITTLE GIANT constantly for nineteen months, I cheerfully confirm every statement made in my certificate of the 3d of April, 1855.

I. D. MATHEWS.

BEECH ISLAND, S. C. Oct. 1, 1856.

Messrs. CARMICHAEL & BEAN, Augusta, Ga.—*Gent*:—I have had a No. 3 LITTLE GIANT in constant use for the last nineteen months, and have fed my stock entirely on Corn and Cob Meal. I have never worked my horses and mules harder than during the past summer, and they have never before, at this season of the year, been in as good condition as they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent. by using the Mill. I am acquainted with several kinds of Crushers, but consider the LITTLE GIANT far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—*Gent*:—We are using the LITTLE GIANT CORN AND COB MILLS, which we bought from you, and hereby recommend them to Planters and Stock Feeders as the most simple and durable, the most easily pro-

pelled and best Crushers we have ever seen, and by the use of which we believe a saving of one-third is made:

NATHAN CRAWFORD, Columbia County, Ga.

(Dr. Crawford has two Mills in use.)

A. J. RAMBO, Edgefield District, S. C.

(Mr. Rambo has three Mills at different places.)

J. PRINTUP, Warren County, Ga.

JOHN B. WHITEHEAD, Burke County, Ga.

T. J. SMITH, Hancock County, Ga.

DAVID C. BARROW, Oglethorpe County, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond County, Ga.

GOODE BRAN, Richmond County, Ga.

WM. J. MIMS, Richmond County, Ga.

V. A. HATCHER, Jefferson County, Ga.

JOHN G. MERCK, Hall County, Ga.

JAMES M. HAREIS, Hancock County, Ga.

A. H. COLLINS, Columbia County, Ga.

HENRY J. SCHLEY, Burke County, Ga.

(Mr. Schley is using two Mills.)

PORTER FLEMING, Augusta, Ga.

JAMES TORRYE, Lexington, Miss.

nov56—3t

## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAYNARD'S "CHAMPION."

The Manufacturers of the "Young America" claim for this Mill: 1st. That it will crush Corn and Cob; also, grind fine Meal.

2nd. That the entire grinding surface can easily be replaced at a small cost.

3rd. That it has an extra set of fine and coarse plates.

4th. That it deposits meal in a box or bag.

5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.

6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2 1/2 Minutes.	10.
"Little Giant".....	4 1/2 "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7 1/2 "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding parts lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf

H. &amp; J. MOORE &amp; CO.

## B. S. WELLER,

Seed and Agricultural Store, No. 57 Market street, Nashville, Tenn.

HAVING established a general Agricultural Depot at the above place, I desire all my old and true friends, and the public at large, to call and see me, and examine my stock in trade.

THRESHERS, MOWERS, REAPERS, Barnhill's unrivaled CORN AND COTTON DRILL, &c., &c. GARDEN SEEDS, from the celebrated establishments of Landreth & Son, Phila., and Robert St. Clair, Baltimore. Also, Clover, Timothy, Blue Grass, Canary, Hemp and Rape SEED, BUCKWHEAT and BARLEY, constantly on hand and for sale.

All kinds of Copper, Tin, Brass and Sheet Iron WARE still manufactured, and STOVES, GRATES, &c., for sale. Agricultural Implements not on hand, ordered and sold at the manufacturer's price and transportation. Also, TINNERS' MACHINES and HAND TOOLS from Peck, Smith & Co.'s Manufactory, Southington, Conn. Also, all kinds of HORTICULTURAL IMPLEMENTS, and a fine stock of FANCY POULTRY, always on hand.

Nov56—3t

## A FARM WANTED.

I WISH to purchase a FARM in Southern Georgia of from 1000 to 5000 acres of land, near the Florida line and lying in the Southern part of Charlton county preferred. Persons having land in that neighborhood to dispose of will please address me at No. 162 I street, Washington, D. C., giving a description of the land and the very least money and best terms that will buy it.

MILTON GARRETT.

REFERENCE—Dr. D. Lee, Athens, Ga.

Nov56—tf

## PEABODY'S PROLIFIC CORN.

THE Subscriber is now prepared to furnish SEED of this invaluable variety of grain. I will put it up in sacks of one bushel, half bushel, peck, and quart, and furnish it at the following rates: For sacks of one bushel \$10, half bushel \$5, peck \$3, or quart 50 cents. This Corn grows like the Wyandot, but is altogether superior for Southern culture, both as a stock corn and for bread, weighing near as much again as the Wyandot, each seed producing from two to seven tillers, each tiller producing ears like the main stalk, one grain often producing twenty ears of corn. The ears are full and large, with a heavy firm grain, weighing, when shelled, over sixty pounds to the bushel. It is a first rate stock corn, and unrivalled for bread, as it makes a meal as white as flour. The seed that I now offer is perfectly pure, as I did not plant a grain of any other corn the past season. Lands that will produce forty to fifty bushels of our common corn to the acre, will produce one hundred and fifty of this. My land is common pine land, never having produced over fifteen bushels to the acre, with the best culture that I could give it. The past season, I mowed a few acres with a single sack of guano to the acre. I have gathered and measured two acres, and notwithstanding the drouth has cut off at least one-fourth of the crop, the two acres turned me out *one hundred and eighty bushels of shelled corn*. This is the second year that I have planted this corn, and it not only holds out its astonishing productive qualities, but has increased in weight. Did it not produce a grain of corn, it is worth its price for the immense amount of fodder that it produces. A field of it growing looks like a field of mammoth wheat, so many tillers it produces. The tillers or suckers should not be removed, as they produce like the main stalk. One bushel of seed will go as far as two of the common corn in planting, as it requires a greater distance.

Orders may be addressed me at Columbus, Ga.; or, to my agents, Messrs. King & Sorsby, Columbus, Ga.; and Messrs. J. A. Morton & Co., 40 New Levee, New Orleans; Ruse, Davis & Long, Savannah, Ga.; Lee & Norton, Montgomery, Alabama.

As a supply of this most invaluable grain is quite limited, planters would do well to send in their orders early.

CHARLES A. PEABODY.

Columbus, Ga., Oct. 1, 1856.

## THE PEABODY CORN.

At the solicitation of Mr. C. A. Peabody, the undersigned accepted an invitation to visit his farm about the middle of July, when they were shown this extraordinary and very remarkable corn.

Its singular peculiarity consists in throwing out fruitful tillers, or sneckers—all emanating from the roots, as is natural to rye or wheat. Upon two acres, said to have been manured with 148 and 152 pounds of guano, it was not uncommon to see, from one grain planted, as many as four and sometimes five stalks, besides the parent one, the greater proportion containing three. These tillers were in size and height nearly equal to the original stalk; on each of which we observed from two to four ears of medium, or respectable size, and all rapidly progressing to maturity. For some days previous, and after the period of our visit, the country was suffering under the influence of a severe drouth.

The crop consisted of about forty acres, planted in rows five by four feet, one grain in a hill. With the exception of the two acres above alluded to, no manure had been applied the present year, as informed by Mr. Peabody. The unmanured part did not promise so well, yet it was far superior to any we had ever seen on the same character of land.

The entire farm is pine land, naturally thin, and without the aid of some fertilizer, would not produce over ten or twelve bushels of the ordinary variety of corn, with propitious seasons.

Should this corn not deteriorate in after culture, from its being a Northern variety, it must prove a valuable acquisition to the farmer and country.

We submit this article as the means of suspending public sentiment until its merits or demerits can be more fully tested and known.

B. A. SORSBY,  
JAS. M. CHAMBERS,  
WM. H. MITCHELL,  
WM. H. CHAMBERS,  
J. C. COOK.

Columbus, Ga., Sept. 18, 1856.

This is to certify that we, this day saw weighed on a pair of patent balance scales, a half bushel of the Peabody corn, the measure being slightly rounding, which we allowed for shrinking—and the weight was thirty-four pounds—equal to 68 pounds per bushel.

B. A. SORSBY,  
JOEL E. HURT.

Nov56—3t

LANDS IN SOUTH WESTERN GEORGIA  
For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany, by 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

W. W. CHEEVER,

Albany, Ga., Oct. 10th, 1856.

Nov56—1f

HOPEWELL NURSERY, FREDERICKBURG,  
Virginia.

THE Proprietor of these Nurseries calls the attention of Tree Planters to his large stock of FRUIT and ORNAMENTAL TREES, &c., for fall planting. The propitious season has produced finer grown trees than he has ever before offered. He would call especial attention to his list of Southern Apples, which he grows in large quantities—his present stock is about 90,000—embracing a large number of Virginia and North Carolina sorts, keeping the whole winter, and equal in size and quality to the most popular Northern sorts, which ripen here, with few exceptions in the fall.

Also a large stock of Standard and Dwarf PEARS, PEACHES, APRICOTS, NECTARINES, QUINCES, GRAPES, STRAWBERRIES, ASPARAGUS ROOTS, ORNAMENTAL TREES and SHRUBS, EVERGREENS, ROSES, GREENHOUSE PLANTS, &c.

The facilities for shipping are equal to any in the country.

A new Catalogue just issued, and sent to all applicants.

Nov56—3t

H. R. ROBEY.

## SOUTHERN CULTIVATOR FOR 1854.

BOUND volumes of the SOUTHERN CULTIVATOR for 1854 may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.50. Address

WM. S. JONES, Augusta, Ga.

## GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address

WM. N. WHITE,  
Athens, Ga.

May56—1f

## CHINESE SUGAR CANE, OR SORGHO

Sucre!!!!—Pure Seed!!!!

THE subscribers take great pleasure in informing the Planters, Farmers and Gardeners of the South, that they have secured from the most reliable sources a limited supply of FRESH SEED, of this very valuable plant, the properties of which may be briefly summed up as follows:

1st. One acre of the stalks, properly cultivated, will yield from 400 to 500 gallons of fine syrup, equal to the best New Orleans; and from the same roots, a second crop of excellent fodder.

2d. Sown broadcast or in close drills, on land deeply plowed and highly manured, it will yield from thirty to fifty thousand pounds of superior fodder to the acre.

3d. It surpasses all other plants for soiling (feeding green) and fodder, on account of the great abundance of sugary juice which it contains; and is greedily eaten by stock of all kinds.

4th. It bears repeated cuttings, like Egyptian Millet, growing off freely and rapidly, after each cutting.

5th. It stands drouth much better than common corn, retaining its green color and juiciness even after the seed matures.

6th. The seed is excellent for human food, when ground into meal, and fattens domestic animals very speedily. From twenty-five to seventy-five bushels can be raised on an acre.

7th. It is so certain and prolific a crop that planters may be sure of succeeding with it as a Sugar plant anywhere South of Maryland and North of Mexico. It planted early in the Southern States the seed will mature and produce another crop the same season.

The seed, which has been very carefully kept pure, from the original importation, will be offered in cloth packages, each containing enough to plant half an acre, in drills, with full direction for the cultivation, which is perfectly simple.

These packages will be forwarded per mail, FREE OF POSTAGE, to any address, on receipt of \$1.30 for each package. When not sent by mail, we will furnish the packages at \$1 each.

Early orders are solicited, as the supply of good and reliable seed is quite limited. Applicants' names will be entered in the order in which they are received, and the seed will be ready for mailing or delivery on the first of October.

Address, with plain directions for mailing or shipping,

D. B. PLUMB & CO., Augusta, Ga.

Pamphlets, containing full history and description of this plant, with valuable Reports on its merits, will be sent, postage free, to all who purchase seed, or who will enclose a three cent stamp.

Dealers in seeds and country merchants can be supplied at a liberal discount from retail rates, if their orders are received immediately.

Oct56—1f

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## WYANDOT PROLIFIC CORN.

THE greatest Agricultural wonder of the age. Its discovery is worth millions to the country. Yield 150 bushels to the acre, (some say 300). Plant only one kernel in a hill, each kernel will produce from 3 to 12 stalks, 10 to 12 feet high, 4 to 50 ears, 8 to 14 inches long, 10 to 16 rows of beautiful pearl white corn. Seed selected with care, warranted genuine, put up in a package sufficient to plant an acre. Price \$1.50, delivered in New York City. Money or P. O. stamps must accompany the order, with directions how to send.

Those who order sent by mail, and remit \$1, will receive, post paid, a parcel to plant an acre; \$2, half an acre; \$4, quarter of an acre. Orders for less than the above rates. Circulars showing the result from different parts of the Union, will be sent to all who address J. C. THOMPSON,

Jan 57—3t

Tompkinsville, Staten Island, N. Y.

## GEORGIA LAND OFFICE AT AUGUSTA.

THE undersigned respectfully informs the public generally, that they have opened an office in the city of Augusta, opposite the Insurance and State Banks, on Broad street, for the PURCHASE AND SALE OF LANDS AND REAL ESTATE of all descriptions, located in any section of Georgia, on Commission. Particular attention will be given to the sale and purchase of Lands in Cherokee and Southwestern Georgia. Persons wishing to have Lands sold, will present them with the best chain of title they are in possession of; also, the original plat and grant if they have it.

Those owning tracts of Lands, improved or unimproved, in any section of Georgia, and wishing to sell, will find this the most effectual medium of offering them. All we require is proper description of improved Lands, the nature of titles and terms, and they will be entered into our general Registry, free of charge. Commissions are charged only when sales are effected.

Persons wishing to make investments in Real Estate, or Lands, located in Cherokee, Southwestern Georgia, or any county in the State, will find it to their advantage to favor us with their orders.

DAVIDSON, GIRARDEY, WEYTE &amp; CO.

JAMES M. DAVIDSON,

J. Woodville, Ga.

GIRARDEY, WEYTE &amp; CO.,

Augusta, Ga.

Feb 56—1f

1857!

1857!

## SOUTHERN CULTIVATOR,

## A MONTHLY JOURNAL.

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume commences in January, 1857.

## TERMS.

ONE COPY, one year.....\$1 TWENTY-FIVE COPIES.....\$20  
SIX COPIES.....5 ONE HUNDRED COPIES.....75

ALWAYS IN ADVANCE. No paper sent unless the cash accompanies the order.

The Bills of all specie-paying Banks, and Post Office Stamps, received at par.

Remittances, by mail (post-paid) will be at the Publisher's risk. ADDRESS W. M. JONES, Augusta, Ga.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

## THE FAST TROTTER STALLION.

ST. LAWRENCE has just arrived per steamer Southern and is at C. A. REDD'S Plantation, four miles from Augusta, on the Savannah Road, and will be let to Mares at the rate of \$25 the season until the Mare proves with foal or parted with.

St. Lawrence is a beautiful Bay, with black legs, mane and tail; 16 hands 1 inch high; 7 years old, with good bone and well proportioned; weighs 1300 pounds. We believe him to be fastest trotting Stallion on the American continent, and, willing to back on judgment, will match him against any stallion for \$1000 a side to go to wagons, over LaFayette Course.

His sire was the renowned trotting horse, St. Lawrence, who was the best trotting horse of his day, having, on two occasions, beaten the celebrated Jack Rossiter, and others. His dam was the fast trotting Mare, Dutch Moll—sire by Morgan.

The proprietors have formed a Stock Company, for the purpose of improving our Southern Stock, and one of them having travelled through the Northern and Eastern States and portions of the British Provinces, instructed to buy the finest and largest Trotting Stallion that could be procured, at a moderate price; and as we have been at a very heavy outlay in procuring this fine Stock Horse, we hope the Planters will look to their interest, and bestow that patronage which our undertaking merits.

By way of encouraging Planters to have care of their Cows, we offer the following premiums: For the best Calf, six months old, a Pitcher valued at \$50; second best, at \$25; and third at \$10.

Good pastures gratis, for all Mares from a distance, and grain fed, if desired, on moderate terms.

A. WILSON,  
J. D. MATTHEWS,  
T. J. CECILE,  
C. A. REDD, } Proprietors.

Augusta, Aug. 25, 1856.

Oct 56—4t

The Constitutionally, Editorial, A. North, Savannah Republican, and South Carolina A. North, will please give four insertions in weekly and fortnightly to J. L. Mathew & Co.

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Charlotte Road, and also on the Memphis and Savannah Plank Road, in the East of Memphis, containing 610 acres, 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good 10-story framed Dwelling, trained Negro House, and Stables for 20 horses and 100 head of cattle. I am now selling in my dairy 25 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Cows, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided in 100 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, half and by "NO. 1" and a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road, leaves Memphis at 1 1/2 o'clock, A. M., and returns at 1 1/2 o'clock, P. M.

JAMES R. FERGUSON,  
Memphis, Tenn.

June 56—1f

## SOUTHERN CULTIVATOR FOR 1854.

BOUND volumes of the SOUTHERN CULTIVATOR for 1854 may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address W. M. JONES, Augusta, Ga.

# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV.

AUGUSTA, GA., FEBRUARY, 1857.

NO. 2.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH—FEBRUARY.

#### THE PLANTATION.

**Corn**—Continue plowing for this crop, breaking up *very deep*, and using all the manure you can possibly obtain—unless your land is naturally rich. You can, however, scarcely manure Corn too highly—it will appropriate all the food you offer it, in the growing season. *Manure heavily, plow deep, and plant as early as the season will admit*, if you wish to have full cribs next fall.

**Cotton**—Push steadily forward, also, your preparations for Cotton planting—have your “beds” thrown up deep and mellow, and get a “stand” as early in the season as possible. We are not aware of any recent marked improvement in the cultivation of our “great staple;” though the practice of our best planters, as heretofore detailed in these pages, might be more widely adopted, with profitable results. Who will give us a short and *practical*, but comprehensive treatise, on this most important subject, for our March number? Many of our new subscribers cannot obtain the back volumes of the *Cultivator*; and we desire that all interests be fully and fairly represented in our journal. Let our best and most successful Cotton planters speak out. Our friends, C. M. Saxton & Co. of New York, are, we believe, about issuing a “*Cotton Planter's Manual*,” which will be very valuable to our readers. We will notice it more fully as soon as it appears.

*Spring Onions* should now be sown as soon as possible. *Irish Potatoes* may be planted, and *Sweet Potatoes* bedded out for the production of “draws,” the last of the month.

*Fences* must be repaired, and put in order for the season.

*Hedges* of the Osage Orange, Macartney and Cherokee Rose, Evergreen Thorn, &c., &c., may still be set out, though the season is growing late.

#### THE VEGETABLE GARDEN.

The operations of the Gardener must now commence in

good earnest. In order to secure a regular and abundant supply of good vegetables, the garden must be put in a thorough condition at once. Let it, however, be remembered, that the soil should never be stirred, nor any seed planted, while the ground is wet; in fact, it must be dry enough to crumble easily, when raked over. See remarks of last month, under this head; all of which will also answer for this month, and if any crop, that was put in before, has been destroyed by frost, let it be renewed.

*English Peas* may now have a good hoeing, drawing a good ridge of soil to them, particularly on the northern side.

All vegetable seeds, except Cucumbers and Musk Melons, may be planted from the middle till the latter part of this month, as *Beets*, *Spinage*, *Parasnis*, *Salsify*, *Lettuce*, *Turnips*, *Onions*, (black seed), *Cabbage* for succession, &c.

During the latter part of the month, *Cabbage plants* may be set out for a crop.

*Okra* seed may be planted; if put in rather deeply, say covered with a couple of inches of soil, it will be safe, and be ready to start as soon as the season will permit. Plant *Irish Potatoes*, and if any of the former planting have come up, hoe and draw the soil up, so as to cover them completely, and they will soon appear again.

By the middle of the month, *Water Melons* and a small crop of early *Corn* may be put in; *Hearts' Ease*, and *White Flint Corn* are the best varieties.

Now is also the time to sow *Celery* seed. We have often planted the seed during the first week of February, and had excellent greens in four weeks.

If *H. Leeds* have not yet been prepared, do it at once.

Where *Sweet Potatoes* are wanted early in the summer, put out your sets in a hot bed, that you may have an abundance of draws to set out by the first of April.

#### THE ORCHARD AND FRUIT GARDEN.

Set out the *Peach*, the *Plum*, the *Apple*, the *Pear*, the *Quince*, the *Fig*, the *Pineapple*, the *Grape*, the *Strawberry*, the *Raspberry*, and all other desirable kinds of fruit and ornamental trees and vines. Examine *Peach* trees for the worm, and *Apple* trees for the borer, and dig those depredators from their hiding places with the sharp end of your knife. Heap plucked ashes around your *Peach*



trees from the "collar" to the height of 3 or 4 inches above the surface of the ground, or pour boiling water around them as heretofore directed. Work around all your fruit trees, stirring the ground well as far as the branches extend, and applying a good top-dressing of manure.—Cover the surface with leaves, pine straw, or loose manure, to the depth of 4 or 5 inches, so that the roots may be protected.

#### THE FLOWER GARDEN.

Plant, at once, all *Bulbs*, such as Hyacinths, Tulips, Crown Imperials, Dahlias, &c., &c. Sow tender *Annuals* in hot beds, and prick out into open ground as soon as all danger of frost is over. Dress and trim *borders*; plant *edgings* of Box; spread gravel on *garden walks*, and roll the surface firmly; plant ornamental *Hedges* or screens of Arbor Vite, Wild Olive, Holly, Privet, &c. Prune *Roses* and other ornamental shrubs. Set out rooted plants, and cuttings of the Rose, Cape Jessamine; and other flowering plants. Stake all newly planted and plant shrubs. Clear up all weeds and foul trash, and prepare your flowerers to "see company." Prepare ground for *lawns*, by plowing very deep, (subsoiling 18 inches,) manure highly and sow a liberal allowance of mixed seed, such as Kentucky Blue Grass, White Clover, Herds Grass, Texas Musquit, Italian Ray, &c., &c. When sown, roll smoothly with a heavy cast iron or stone roller, and keep off all fowls, pigs, cattle, &c.

*Transplant Evergreens*, such as the Wild Olive, Cedar, Magnolia, &c, by digging a deep trench around them, (if large trees,) and lifting a large ball of earth with the roots. Prepare a wide and deep hole to receive them—cut off smoothly with a sharp knife, all broken or bruised roots; use an abundance of water; fill in with fine, rich soil, pressed firmly around the roots with the foot; leave a shallow basin or cavity around the trunk to hold water hereafter, and finish by staking securely and mulching with a thick layer of leaves or straw, over which sprinkle a few shovelful of earth, to keep the wind from blowing it away. The *very best* time to transplant Evergreens is just as the young growth of these trees is shooting out in the spring.

#### A LECTURE ON LABOR.

BY DANIEL LEE, M.D., PROFESSOR OF AGRICULTURE IN THE UNIVERSITY OF GEORGIA, JANUARY, 1857.

GENTLEMEN—I shall commence the present course of Lectures by attempting to explain the origin of productive industry, and the dignity of human labor, it being the most important element of Agriculture.

Some regard all labor as a "necessary evil;" others consider it as a punishment for the disobedience of our first parents. I have not been able to view the subject in either light, or shade. To my mind, nothing in nature is clearer than the fact, that our daily wants of hunger, of nakedness, of sleep, and of shelter from the extremes of heat and cold, are designed by Providence to make us pre-eminently *working* as well as *thinking* animals. Other animals both labor and think, but with greatly inferior results. If we compare man, with his wonderful powers of

speech, with the mute snake, we find the latter able to subsist comfortably a whole year on a single meal; and at the same time the reptile needs no clothing. In a year man requires over a thousand meals, and not a little artificial covering by day and by night. The most careless observer cannot fail to notice the extreme weakness, the utter helplessness of a child during several years of its infancy, which are in no respect a matter of choice with either parent or offspring. For wise and beneficent purposes, the family tie has its strongest ligaments not in any conventional rule, but in the organization of man. To meet the most obvious and pressing wants of his children, and provide for his own, he is compelled to labor in some way by a natural law from whose penalty there is no escape when disobeyed. Savages and semi-barbarians, when left to themselves, labor comparatively little; and as a consequence, they remain from age to age unimproved, and suffer all the privations and exterminating wars peculiar to man in his lowest estate. From this unhappy condition of physical suffering, of social, moral and intellectual degradation, there is no possible escape except by and through that muscular and mental labor which our Creator has made at once the most honorable, the most useful, and the most effective of all possible employments. To work with one's hands or brain is no more a punishment than the inability of a child to walk and talk before it is six months old is a punishment. Providence imposes on all alike his own conditions of life; and while He causes the proverbial industry of the ant and honey bee to contribute indefinitely to the happiness of these insects, He makes manual labor the most prolific source of human enjoyment. Productive industry is not only a blessing to those who perform it, but the parent of ten thousand collateral blessings in the perfect economy of Infinite Wisdom. Nor is there more than a shade difference between physical and intellectual effort; both meet as equals in the nervous system; and neither is capable of ruling the other tyrannically without serious injury to the whole constitution of man.

On no subject is there more erroneous talking and writing than on that of the *rights and duties* of labor. Persons calling themselves philanthropists not only "rejudge the justice" of Heaven, but would fain re-create the universe to give their fellows a happier existence than this world affords. Such philanthropy, however, rarely fails to injure the parties to whom its devotion is so vehemently paid. All zeal without knowledge is fraught with danger and mischief. Seeing this, thoughtful students often and well enquire, "Why is it that man's productive powers, whether in agriculture, manufactures or other pursuits, develop themselves under such uniform features and characteristics? Why are all either free and independent laborers for themselves, or hired, or apprentices, or slaves?"

These questions strike at the root of man's industrial and social organization; and their right solution deeply concerns the best interests of society in every country. Let us then be sure of our facts before we attempt to reason at all on this labor question:

No one can doubt that hundreds of millions in civilized, and semi-civilized nations are at work for themselves as free laborers, or for others as hirelings, or as slaves, or as apprentices for a term of years, or life. Nor can there be a reasonable doubt that each of these forms of human industry has prevailed for hundreds and thousands of years, by the force of some law which operates independently of revolutions in governments, and in defiance of the schemes of enthusiasts. If self-employment and free-labor are better for all than to work for wages, or be a servant for life, why did not the early experience of mankind lead all to adopt exclusively this most advantageous system of industry? No other good reason for preferring a life of comparative dependence as a servant to that of an independent worker for one's self, can be given except to affirm that the subordinate position requires less mental care, less anxiety, and less responsibility; and it is, therefore, preferred by minds of an inferior grade. God has not given to all that degree of intellectual force necessary to raise them above a subordinate position in providing for their own animal wants.

From this state of things there is no appeal; and, therefore, when the philosopher GREELEY and the *Tribune* undertook, a few years since, to carry into practical operation FOURRIER's theory of a general proprietorship and association of laboring families, by which all "hired help" was to be happily dispensed with, the scheme uniformly failed. Neither "phalanxes," nor the most ingenious assorting of trades and professions with a view to suit all tastes, and all proclivities, can alter the essential elements of human nature.

Some men are, apparently, born to command; some to excel as master workmen, and become the employers of thousands; some attain to the distinction of being faithful and reliable hired men; and some are happy to be exempt from all business cares, like wages or the providing for a family, and labor for life as an apprentice who never gets through learning his trade. In this country, the last named persons are mis-called *slaves*.

Between these different forms of productive industry there is really less antagonism and greater production, than there would be under any other conceivable arrangement. It is the arrangement of God not of man. Make all who are servants for life, and all hired persons, independent of their employers, with their present defective labor, and mankind would compete together with less diversity of products, and a smaller quantity; and at the same time, their common wants would in no respect be abated. The people of England wanted not a pound less sugar after they unwittingly changed the industrial relations of the laborers on their West India Islands; and yet, these laborers, when licenced not to work by the British Parliament, found themselves utterly incapable of making a tithe of the sugar which they made before. Negroes cannot work miracles more than white people; and it would have required supernatural power to give to the officious change of labor on these sugar plantations any other than a ruinous result. The experiment was precipitate, and based on two ideas, both of which are false. One was that common field hands will do more and better work as hirelings than as servants for life; and

the other was the popular notion that the relation of master and apprentice for life is morally wrong and a public evil. The ~~wrong~~ and the public evil lie at the door of all who have a private standard of ethics which differs essentially from that of the Bible; and who will not permit employers and employed to pursue in peace those industrial arrangements which long experience proves to be best for all parties. If it were entirely practicable to send out of the planting States every negro, it would be difficult to find either at home or abroad, three and a half millions of laboring people who would, or who *could* produce an equal quantity of cotton, rice and sugar. These great staples are among the necessities of civilized life; and in no other way than by negro labor *as now directed and controlled*, can the present supply be maintained. No other agricultural labor in this country is so remunerative or is managed with equal skill, all the reports of larger returns in the free States to the contrary notwithstanding. Their agricultural statistics are exceedingly defective, and greatly over estimate the value of Northern staples.

First: They estimate their corn, oats, hay, pasturage and all other food for domestic animals, at a high figure.

Secondly: They claim full credit for all the slaughtered animals grown and fed on the crops named, which are thus estimated *twice* for the benefit of Northern tillage and husbandry.

Thirdly: They not only count the hay and grass that form milk, and then price the latter at some millions, but this milk appears again in the account once as cheese, and again as butter, and still again in pork made from whey and buttermilk. Hay and grass are re-estimated in wool and sheep, in horses, mules, cattle, and partly in swine.

Neither Southern cotton, rice, tobacco, nor sugar is thus over-estimated; and, consequently, the great staples of the planting States are made to compare unfavorably with those of the farming States. Isolate the apprentice labor of the South from that of hired persons both North and South, and the latter in both sections will be found less remunerative than the former. To understand the reason of this, you should study closely the causes that enable one who has a cotton mill in Massachusetts or elsewhere, operated by fifty hands, to undersell goods made in a family by only five hands. Possibly these five laborers may be better informed, and work harder than the average of the fifty; but much sound economy is entirely practicable in the larger establishment which is wholly impracticable in the smaller one. So obvious and important is this difference in manufactures, that the system is rapidly extending from cotton mills of fifty up to five hundred operatives.

At the North, the well known principle of extensively combining the productive powers of man is far less applied to agriculture than to the mechanical arts; while at the South the reverse is true. We have but few large manufacturing establishments of any kind. Our plantations, however, often give employment to fifty times more operatives than are seen on Northern farms. It is absurd to contend that a system of rural industry is bad in itself, and unprofitable, so long as the laborers are, to all human appearance, happier than any other equal number of farm operatives in any country; and at the same time, their employers command the best markets in the world for their staples, in spite of all competition, backed by mountains of prejudice against their system of productive industry. It is suicidal for honest labor in one form to attack equally honest labor in another form; for their interests are identical. Each has its peculiar advantages to compensate for its acknowledged disadvantages. The parental care and guardianship which belong to the apprentice system for life, and the mutual confidence it inspires, make it triumph over all opposition, not so much by the wit of man, nor the strength of numbers, as from the fact that

the relation of master and servant is founded in Nature, and has the God of Nature for its support.

Man does not create the necessity that compels him to till the earth. The whole dispute about the different forms of labor, when sifted to the bottom, is found to be more a controversy relating to shades of color than any solid matter. An impartial investigator will find each best in its proper place. It fully meets, and can alone fulfill a natural want in society; and, therefore, it is that society perpetuates from age to age, the five different kinds of productive labor which I have named.

Had our Creator made all men on a common level in capacity, and attainments, in industry, frugality and economy, it is possible that only one class of laborers would have been known among mankind. But since no such equality of endowment exists, or can possibly be made to exist; and since there is an infinite diversity of gifts, propensities and habits, including millions with whom idleness and vagabondism, with all their attendant evils, are almost incurable maladies, there is a positive necessity for coercive labor. Such at least has been the decision of the best informed of our race in all ages of the world.

In the progress of time, important changes in society take place; and the words *slave* and *slavery* are no longer applicable to those held to service for life in the United States.

When the savages of Africa engage in wars, and in place of putting prisoners to death, or killing their enemies in battle, make them their *property*, and sell them as such, long usage denominates them "*slaves*." But where servants are born the property of another, who feeds, clothes, and protects them alike in infancy, sickness and old age, and who is bound by State laws to provide for all their wants through life, persons so held to service approximate nearer to the condition of apprentices than to that of slaves, properly so called. This was the opinion of the framers of the Federal Constitution; and the same clause which enables a master to recover his negro apprentice for life, who runs away from him from one State into another, has precisely the like force in authorising the master of a white apprentice, who flees into another State, to capture him and take him back to serve out his time. In all hired and apprentice labor, it is expected that the employer as well as employed will be benefited. Each of these industrial relations is some times abused; but it is the purpose of sound public opinion and restraining laws to prevent all abuses as far as practicable. Doubtless something more will be done as the subject becomes better understood. The unexpired service of a man who is hired for a year and has worked only a few months of the time, and that of an apprentice who is bound to serve his master seven years, or for life, have, from time immemorial, been bought and sold as lawful property. Nothing more than this continuous right to service on the fulfillment of important and reciprocal obligations on the part of the purchaser, is ever sold when a negro changes owners in this country.

Viewed as a system of Apprentice labor for the gradual but certain improvement of an inferior people, giving them all the liberty they can bear without abusing it, I see no good reason why Southern Agriculture carried on by this kind of labor may not become as popular under a new, and more appropriate name, as it is now unpopular from a name derived from a land of savage cannibals.

No one can truthfully deny that as American apprentices, who of some discipline, salutary restraint, and elevating labor have worked wonders for these naturally stupid and degraded people. Withdraw these advantages prematurely, and their relapse into barbarism is as certain as any future event can be.

It is one thing to labor industriously, and quite a differ-

ent thing to labor to the best possible advantage. No one who has not made agricultural industry a special study, has any adequate idea of the amount of honest hard work annually thrown away by its misapplication. Every State in the Union loses more in this way than it would cost to give every child an excellent education, including a thorough knowledge of the true principles of tillage and husbandry. It is by the absence of this information that the soil is everywhere deteriorated and impoverished by American cultivators; and as the number engaged in taking annual crops from the arable lands of the United States increases rapidly, it follows that the injury done to the soil also increases from year to year in a nearly equal ratio. It is true, no census, State or National, shows in terms the damage done to a single acre of land in the whole country; but no well informed person, who sees so many million acres of abandoned old fields, and so many still under the plow that yield diminished harvests, can doubt the fact that American agriculture is prosecuted at the expense of the natural resources of the earth. This being the most prominent feature in our system of tillage and farm economy, whether carried on by hired labor, by farmers working for themselves, or by planters working apprentices for life, it becomes a question of paramount importance to know what are the positive resources of any square yard, or given quantity of earth, for the growth of agricultural plants? Do one hundred pounds of common soil contain ten pounds, one pound, or one-tenth of a pound, of the precise things which nature takes from the ground in forming cotton, corn or wheat? Millions labor to produce these and other crops, without knowing their elements, or the scarcity, or abundance of said elements in the land cultivated. The mind that directs the planting of the seed is just as dark in reference to the food on which the young plant is to subsist as the place where the deepest roots hide themselves from the light of day. To remove this intellectual darkness, and make every cause of infertility, plain both to the eye and the understanding, is the object of Agricultural Science. No form of muscular toil, no amount of hard work can possibly give to the mind what skilful teaching and study impart to it. Had physical labor been adequate to make one wise in reference to the principles of agriculture, all its principles would have been mastered before the Flood, and never lost to the world. But long experience proves that the principles of any industrial pursuit are rarely learned without uniting much critical research with the practice of the art, trade or profession. Hence, too much study and too little work, or too much work and too little study, may be equally incompatible with the most skilful application of manual labor. One who is expected to govern and direct the labor of others needs more information than one who simply has to direct his own muscular powers, and govern himself. An overseer on a plantation is in duty bound not only to govern himself properly, but all others under his charge. He should, therefore, be better informed than a common man, who works by the month or year in the field. But one who owns the plantation and the persons that cultivate it, should be better informed in agricultural matters than his overseer; otherwise he is more in the power of the latter than prudence warrants. The wise professional education of planters and farmers will do more to elevate society, by their example and personal influence, than any other measure which is equally practicable. They give employment to more people than all other classes combined. Whether these laboring people are hired for wages, or serve as apprentices for life, it is the interest of the employer to instruct them in all that relates to the best system of tillage and rural economy; for their hands and intelligence must carry into execution all the plans of the proprietor. His knowledge becomes the common property of all under



him, if they have the capacity to learn. Hence, the servants of a highly cultivated family are uniformly more polite than those of a family wanting in that regard; and for a similar reason, the operatives of a master who is thoroughly acquainted with his business become more skillful for his example and verbal instruction. It is in this way that the most unintellectual laborers are instructed and greatly improved by constantly associating with persons much better informed than themselves. The judgment and reasoning faculties of a farmer or planter should be cultivated in the highest degree; and yet he should not be wholly removed from his agricultural associations.

(To be concluded in our next.)

#### COTTON SPINNING ON PLANTATIONS. Mr. Henry's Patent Machinery.

We copy the following account of the apparently important invention of Mr HENRY, from the *Journal of Commerce*. It cannot fail to arrest the attention of our readers:

An invention, which is forced, from its character and nature, to occasion such a revolution in the operations of commerce, and add so enormously to the annual productive wealth of our nation, deserves a description, far more elaborate, extended as this article may appear, than we can now devote to it.

Before we proceed to describe it, however, it is due to the subject to say a few words about cotton itself.

It is admitted by all, to be the great basis of the now extended commerce of man. During no five centuries have the progress of the work equalled that of the last half century; at the commencement of which era the production of cotton and its manufacture may be regarded as having been just inaugurated. And the transcendent progress of the arts and the extension of commerce has only been equalled by the increase of this production and its manufacture.

Gladly would we indulge in a review of this bright epoch; but leaving it to the reflection of our readers, we must turn to the immediate business of our article.

To estimate the extent of this improvement in the manufacture of cotton yarns, we will first describe the mode the seed cotton is prepared for, and in which it is sent to market.

Cotton in the seed being over three times its weight when ginned, and a very bulky article besides, the gin houses must be located in, or very near the lands upon which it is produced. The gin is placed in the second story of a large building, and the cotton is taken up to it, that as the gin takes the fibre from the seed, a brush wheel, running in the rear of the gin saws, while it brushes the lint from the saws, may also throw the fibre, now in a very open, straight condition, into the lint room on the side of the house below; the horses or mules working to a segment wheel below, giving motion to the gin. From the lint room, the cotton is taken in baskets to a box, under a huge screw, and there it is pressed into and becomes a bale.

When it reaches the ports, each bale is sampled by the seller to sell by, and is re-sampled by the buyer—which operations are repeated in the foreign ports. So light is the article, even after it is pressed as described, that a stevedore only drawing three feet water may be piled ever with cotton bales until the hurricane deck, as it is called, is as completely covered as is the hull and between decks. On being sold in the ports, it is almost universally compressed at the instance of shipmasters, that they may stow into their ships a greater number of pounds.

Shipped, via Liverpool to Manchester, it is opened in their factories there, and about one bale of short staple Surat cotton is added to two or three of our American cotton, and well mixed together.

By this process of baling and packing the cotton, it becomes tangled and matted together, and the leaf, trash, &c., which the gin did not extricate, the fibre takes fast hold of, and to open and disentangle it, and free it from this trash, leaf, &c., which must be done to make good yarn, the cotton is run first through a machine called a picker. Its cylinder revolves about 1600 times in a minute, and is armed with strong iron teeth. It is then taken through the lap machines. These have two or often three beaters, revolving some 2100 to 2200 times in a minute. The fibre is passed through two of these, in many factories, from whence it is taken to a set of carders, and often through another set to finish it for the drawing heads, &c.

The improvements of Mr. Henry arise from this—the lap machine is attached to the gin, and all the preferred spinning machinery is so arranged in connection, that from this gin and lap the cotton is taken on through the different machines used in the process of spinning, without any handling from the time it enters the gin until the yarn is put into bales.

The gin, in the process of Mr. Henry, is not required to gin over one-third the quantity gins now do. For example, a planter now making one hundred bales of cotton, has some 1000 lbs. ginned in a day (that is, clear of seed) and is three to four months ginning such a crop, off and on. The same planter beginning to gin on 1st September and ending 1st March, at about 340 lbs. a day, will gin and spin this crop.

Running the gin thus, we extract from it more of its natural functions, (that of the carder to cleanse the cotton,) than is now expected from it, when the great desideratum is to gin rapidly, that the crops can be got off as soon as may be to market, and before bad roads interfere with its hauling, &c.

We have said above, that the cotton, when taken by brush wheel off the saw cylinder, was in a very open, straight and flexible condition. In the improvement we are considering, the cotton as taken just in that condition from the gin, and passed on through the lap and other preparation and spun without going into a lint room, being baled or being re-opened, &c.

It will strike every one very forcibly, that taking the fibre when thus open and loose, or to have the impurities taken from it, as this fibre has not grasped or tangled itself about them, the wash and impurities fall easily, freely and naturally from the fibres, precluding the necessity of the tearing, bruising and pulverising manipulation it now requires to cleanse and open it, and withal which, it still is very imperfectly done. Besides, taking the cotton just from the seed, it is oily and elastic, and works far more kindly into yarns than than it ever afterwards will. It must be here stated that in running the cotton through the gin as rapidly as it is now run, in the necessarily running it through the picker in the cotton factories to open and disentangle it, and the continued severe manipulation it has to undergo in the further operations of the extra heating in the lap machine and extra carding, that, besides the ascertained large amount of waste, some 17 per cent, which now flies off in consequence of this treatment, a large quantity of broken up, mutilated and intrinsically destroyed fibre enters into the yarn, and of which it is largely composed.

And herein stands out in bold relief the great improvements that the waste, by Mr. Henry's process, is diminished at least 10 per cent, and the yarn being made of comparatively unbroken and unmanipulated fibre, is infinitely stronger, and finer yarn can be made of it with greater ease.

We all know the length of the fibre is what gives strength to the yarn—and the less its manipulation the less the fibre breaks, and the less of the downy substance by which it is serrated you remove. And to this downy substance may be ascribed the adhesion or affinity of fibre for fibre, which makes the yarn of cotton the king of textiles.

#### THEN THE IMPROVEMENT:

1st. Presents to the family of man a yarn, all of fifty per cent. better than can be manufactured by the present processes, and which secures to itself the markets of the world, defying all competition.

2d. The machinery can be conveniently arranged on the plantation, where the cotton is ginned, and very little additional power to that which gins will also spin it.

3d. The machinery working like clock work, with the exception of one skilful carder and spinner to superintend from one to a half dozen plantations, the little children of each plantation, from eight to twelve years old, and a few of the women not required to work out, will be fully sufficient to spin up the crop, in addition to those now employed to manage the gin; in a week's time these will learn enough to proceed successfully with it.

4th. The crop can be spun up in season to withdraw any hands necessary to spring planting, that may have aided in spinning.

5th. In effect it will double the exports of the country, and generate and set in operation new improvements and enterprise.

We might enumerate, one by one, many other of the numerous improvements resulting from this invention, but we will simply say in addition, that cotton being spun into yarns, is so compressed, that the same number of pounds that cover over a steamboat, exposing it to wet and fire, can on the same sized boat be stowed and protected nicely under cover.

Yarn, unlike cotton, is not extra hazardous, and insurance will be lessened on it. The freight and general charges being on the pound, as they will be on an article doubled in value, will be reduced in the descending ratio one-half. Sold by numbers in the ports, its frequent sampling and turning out for examination, &c., will be discontinued. There is deducted from the price which the planter sells his cotton, wherever he sells, all the losses and charges on it until it reaches Manchester, and also the estimated waste on it there, while it is being converted into yarns. Hence a system which saves 10 per cent. waste to and in ports, from damages, sampling, &c., with the saving of charges—10 per cent. more—furnishes, with other stronger considerations, the motive to determine the planter to the manufacture of his cotton into yarns; and the advantage to customers is, that the saving of 10 per cent. of waste is equivalent to an increase of the American crop of 300,000 bales per annum.

Commission merchants will rejoice in their commissions on an article doubled in value, paying them well to represent the interests of their principals.

As Surat is rendered available in Europe for yarns, mostly by its mixture with our cotton, spinning ours up cuts off so much of the Surat as is now thus used, from competition with us. No small advantage itself. So many valuable results have already been presented, flowing immediately from this improvement, that we may now allow the minds of those who understand it, to pursue its consideration for further material ones.

Every practical spinner or manufacturer acquainted with the operations of the picker, spreader, and beaters, and carders, will at once see what this new mode accomplishes, and its contemplation has been said by those who appreciate all of its consequences, to be intoxicating.

The release of capital in Europe, now employed in

spinning, to be diverted to the demands of increasing commerce, and the enormously increased income of the South per annum, will far exceed the valuable effects, the discovery of two Californias.

If the cotton of the South only ginned has set the world in motion, what will it achieve when the planter also manufactures it into yarns?

One word in conclusion, respecting the consumption of cotton, and its connection with this improvement.

Its consumption has been evidently checked by the clear incompetency of planters to produce it. That of last year, when 3,500,000 bales of American cotton were consumed, besides those of Egypt, Brazils, India, &c., and without the stocks of manufactured goods on hand being increased, proves this.

Although England exports about 160,000,000 lbs. of yarn a year, she is eager to weave up and finish the cloths for consumers, and hence does not press the yarn trade. The consumption of cotton yarns in Germany, Russia, South of Europe, and France, is rapidly on the increase, and could they command a portion for their consumption equal to what the British nation or our own consumes to the head, if our crops were doubled, it would be insufficient to meet it; however, with a yarn superior to any that can be produced by any other process, ours must distance all competition, and meet ready markets.

SPINNER.

#### RURAL ARCHITECTURE---ORNAMENTAL Gardening---The Embellishment of our Homes.

EDITORS SOUTHERN CULTIVATOR—Our farmers and planters, are, it seems to me, almost culpably neglectful of the beautiful and tasteful around their dwellings, and of what is due to the Creator and Architect of the Universe in the erection of Churches for His worship. It appears to me that the adornment of *home* would have a powerful influence in elevating and educating our rural population. The associations connected with a pretty and pleasant homestead would have a tendency to check emigration. Farmers would then endeavor to improve their soil, instead of seeking richer lands.

I would respectfully suggest, that some practical hints on this subject, showing that taste could be exercised without any great expense, would be well received by the subscribers to the *Cultivator*.

The remarks might extend to the style of building fences, well houses, out-buildings, the arrangement or plan of the buildings and grounds, &c., &c.

How often we see stables placed near and in front of the principal entrances, not a shrub or vine around the house, a rail fence enclosing the door yard, &c., &c.

I am aware that I have taken a liberty in thus introducing a subject and making a suggestion, but I have done so, hoping that it might attract your attention enough to induce you to draw from some of your numerous and qualified correspondents a series of articles on this subject.

Yours, &c.,

W.

Aikin, S. C., Dec., 1856.

[The same correspondent very obligingly sends us the following article, which, we presume is from his own pen. It appeared originally in the *Charleston Courier*:

#### RURAL ARCHITECTURE, &c.

In a progressive and enlightened age as this, it is somewhat astonishing that so little effort has been made to improve and beautify the homes of the rural population of our State.

The associations connected with childhood have an important bearing on the conduct of the man, and the recollections of youth form the most agreeable pictures that are impressed on the tables of memory.

The scenes of our childhood, the hopes our youth, and the aspirations of our manhood come crowding at the mere mention of home. In infancy, consciousness first dawns upon the beauty of nature beneath the grateful shade of its trees, and their memory in after life acts as an incentive to noble action.

There are but few whose eyes will not brighten, and whose pulse will not quicken as the reminiscences of past happy days are brought to mind.

"How dear to this heart are the scenes of my childhood,  
As fond recollection presents them to view;  
The orchard, the meadow, the deep tangled wild wood  
And every loved spot which my infancy knew.

"The wide spreading pond, the mill that stood by it,  
The bridge and the rock where the cataract fell,  
The cot of my father, the dairy house nigh it,  
And e'en the rude bucket which hung in the well."

With associations similar to these, and with sufficient wealth at their command, a large portion of the citizens of our prosperous State are content to dwell in houses but little if any better than those constructed by the first settlers of our soil; and there to bring up and educate the children, who are to be the men and women of the next generation.

They think, no doubt, that it is for the benefit of those children that they continue to economize and toil; but a few moments reflection would show that the foundation of all education is laid at the home of our childhood. With the perceptions of order, symmetry and beauty, awakens the desire for possession, and with them comes that refinement of manners which distinguish a civilized from a coarse and brutal people. And as the first perception of order and beauty is awakened in most minds by external objects, a comfortable and attractive home has an important bearing on education and refinement.

Like a strong anchor, the mere sentiment of home has saved many a person from shipwreck.

Then, how necessary does it become, for a thinking, moral people, to throw every attraction around their home that their means will allow. In this view, the adornments of the Homestead has social and moral influences far beyond the mere gratification of the eye, or the consideration of dollars and cents.

The desire to surround ourselves with the higher sources of enjoyment, rather than be content with mere utility, is to acknowledge the existence of a sentiment, which, next to a religious one, is the purest and noblest part of our nature.

A man's dwelling, to a certain extent, may be regarded as a type of his character, and in the aggregate, the appearance of the houses, as an index of the people.

Ranlett, in his work on Architecture, observes that, "The house proper, deserves more care and calculation, in its structure, than a packing box. It is the case in which a man places the objects which are dearest to him; in which he shuts himself from the world to enjoy that portion of it which he can call his own; it is his sanctuary in the time of trouble, his retreat from oppression, the scene of his first struggle for life, and the last glimpse of the world."

Doubtless many persons are deterred from endeavoring to render their homes attractive by fear of its involving a large outlay of money. To a certain extent, this need not be the case—taste and judgment will point out many additions and ornaments, that can be had, which cost but a trifle or a few hours labor.

The effects of vines, evergreens and shade trees, are not sufficiently appreciated. Three-fourths of the cottages that have endeared themselves to the hearts of true poets and lovers of nature, have owed their charms to the trees and shrubs and vines with which they were embowered.

It is the rural character imparted by this drapery that wins the affections.

Associations of refinement, grace and beauty, are connected with the female occupation of a cottage, where

"Across the porch, thick jasmines twine,  
And in the garden, myrtles blossom."

In our wild woods we have many beautiful running vines, such as the jasmine and china, that would require but the labor of a few hours to transplant, and which would aid materially in giving significance and *feeling* to a cottage, however humble it might be. For variety, the rose, honeysuckle, grape or hop might be added.

A row of evergreens judiciously placed might hide an unsightly object from the view. But nothing can compensate for the want of shade trees around a country house.

In lieu of enclosing the door yard and adjoining field with the ordinary worm fence, how much better it would be to have a hedge—a plain paling—a rough board or even a post and rail fence. Such additions as these, costing nothing but time, would entirely change the aspect and throw a charm around many a place that now looks cold and desolate. Something of a love for the beautiful is always suggested by a vine covered cottage, because mere utility would never lead any one to so adorn their residence.

A house might be compared to a woman. A great deal of money might be expended in rich dressing, which would add, if properly applied, to the attractions suited to the taste of some persons, but when neatly and tastily dressed with well fitting garments, there is a charm that all will acknowledge; and to carry the simile a step further, if slovenly dressed creates a dislike.

There is a misapprehension of the requisites of beauty in a dwelling; most persons think to embellish a house would be very expensive—this need not be the case. An expression of beauty can be given to the simplest farm house. Even a common log house may be made attractive.

Our country houses should embody such ideas of order, beauty and truth as shall elevate and purify the mind. A building may completely answer the useful requirements of man, and yet give not a ray of pleasure or satisfaction to his heart or understanding.

If, in the erection of the more expensive class of houses the opinion of architects were consulted, it would save many hundreds of dollars and add to the comfort and happiness of the occupants. Beauty and convenience are infinitely cheaper than ugliness and inconvenience. It seems reasonable to conclude that a man who has made it an especial duty to adapt certain means to certain ends, would be more competent to do so than one who probably had thought of it for the first time in his life.

In regard to cheap residences, there are no buildings, however humble, to which an agreeable expression may not be given. A picturesque character is bestowed by bold projections, casting heavy shadows. Roofs projecting from 12 to 36 inches, not only have this effect, but serve to protect the walls and make it cooler in summer.

Hoods or projections over doors and windows, with heavy (or thick) casing, contribute to the general appearance, and give a cheerfulness of external effect. These are among the simplest, cheapest, and most effective modes of giving force and spirit to any building. Deprive any structure of its light and shade and it becomes tame, cheerless and unattractive.

*Feeling* can be shown by bay-windows and rustic trellises covered with vines,

"A thing of beauty is a joy forever."

Farmers generally urge that they have no money to expend in ornamental decorations, but if they would only think of the pleasure derived from a pretty home and the

influence it would exercise on their children, and of the trifling cost in money of such additions as these, they could not help but admit their error.

In the construction or repairing of any and every country house three things should be kept constantly in view, viz: convenience for domestic duties, proportion and symmetry, and bold projections for casting shadows. In addition, the yard should be well supplied with ornamental vines, shrubs, flowers, and shade trees.

PERSIMMON.

Arlin, S. C., March, 3, 1856.

#### "THE ART AND PRINCIPLES OF SOAP MAKING."

A CORRESPONDENT, writing over the signature of "R. B.," whose communication may be found on page 34 of our last number, "thinks" our "remarks on the art and principles of soap-making," published in May last, calculated to mislead our leaders. Thence he proceeds to point out sundry errors, as he supposes; and says: "If I am wrong, I shall be glad to get right."

Soap being an article of universal consumption, and its home production on the plantation a matter of good economy, the subject is of sufficient importance to warrant a thorough discussion in this family journal. We stated that "water slowly decomposes soap." Our friend asks: "Is it not the *lime* and *salts* in the water which decompose the soap?" We answer, no; in the case to which our remarks applied. Everybody knows, or at least ought to know, that earthy salts in spring and well water decompose soap, and often so injure the water that it is nearly valueless for washing purposes. We were explaining how the milk-like appearance of soapsuds is produced in pure water. Our correspondent fails entirely to give the rationale of this interesting phenomenon. A solution of gypsum, copperas, alum, or other salt not unusually found in water that has passed over or through a mass of earth or soil, seriously impairs the quality of soap suds, or the emulsion of oil or other grease in water. In a word, the decomposition of soap in the two cases is different; giving rise to a wide difference in the detergent power and value of the suds. So long as the chemical compound called soap remains perfectly soluble in water, its solution is clear and translucent; but as the most satisfactory analysis has shown that pure water will abstract one-fourth of the alkaline base from oleic acid, this oil is left diffused through the water in infinitely small particles, and in the early stages of the formation of suds, gives to the water the appearance of fine 'white clay' being similarly diffused through it. The milkiness of the water increases, and the suds thicken as washing and the decomposition of the oleate of potash or soda advances. As "R. B." suggests that KNAPP is mistaken in his views on the subject, we will here state Dr. KNAPP is a Professor in the University of Giesen, which is more distinguished than any other in Europe for the skill and thoroughness with which analytical chemistry is studied and taught therein. LUNN, FRESENIUS, WILL and KNAPP have given to his Chemical Science a world-wide reputation. Neither Europe nor America affords higher authority than the author of "Chemical Technology," who, as we stated in our former

article on this subject, devotes forty-eight pages to its elucidation. He says: "Cold water *never* dissolves the oleate, margerate or stearate of an alkali—the soap of commerce therefore—without *decomposition*. The neutral salts are resolved into an alkali which dissolves, and into an acid salt that is precipitated. The same decomposition occurs when hot solutions of soap—particularly weak solutions—are cooled." The critical reader will note in the above, the absence of all allusion to the agency of lime, or other earthy salts in decomposing soap in water. KNAPP farther remarks: "CHEVREUL investigated this decomposition, in the case of stearate of potash, with the greatest accuracy, and the results of his examination are well suited to illustrate the action of soaps in general. When a solution of neutral stearate of potash is cooled, one-fourths of its potash remains in solution, and a mixture of neutral with acid stearate of potash is *separated*. If the same salt is allowed to dissolve in 5000 parts of cold water, the acid stearate [of the mixture] is alone precipitated; in the form of scales, possessing the lustre of the mother of pearl, and the half of the potash remains in solution. This behavior is common to the neutral margarates and oleates of potash and soda: and it explains why, in using soap, even with the *purest water*, a whitish turbidness—soap suds—is always obtained. The alkaline property of soap suds is *solely* due to the liberation of a portion of the caustic potash or soda; and this it is that affords the *possibility* of removing fatty impurities in water, which is the sole object of washing with soap."

Our friendly critic will see that our theory of the detergent property of soap is fully sustained by the most reliable authority, and that such detergent property is chemical in its action, and not mechanical as he evidently believes when he says, speaking of turpentine soap: "It unites with grease with remarkable facility, and by the *friction* which it induces, greatly promotes the cleansing of cloth, while pure tallow or oil soap causes the folds of cloth to slide quickly and smoothly over each other, so that little or no motion takes place in the fibres of the cloth, and the removal of dirt from the interstices is thus retarded. Good housewives always add rosin or turpentine in their soap boiling, for the improved quality of the soap thus yielded."

No one has a higher opinion of "good housewives" than the writer; yet, have they that critical knowledge of the chemistry of domestic affairs, particularly in reference to the manufacture of soap, which entitles their opinions to overrule, on a purely chemical question, a distinguished Professor of the Giesen University? To do "good housewives" no more than justice, we are constrained to remark that very few are, from choice, in the habit of washing their hands with "rosin soap" to avoid themselves of that excellent "*friction*" which commands itself so highly to the favorable notice of "R. B." At the same time, we would state, that we have nothing to say against "good turpentine soap." It was a bad article that we condemned. The idea that either rosin or turpentine is better than fat or tallow to make soap is an injurious error. The former have cheapness in their favor—nothing more.

Again, "R. B." asks: "Does not the addition of salt in

sufficient quantity to potash soap, such as you describe, *does not* solidify soap. And does it not form a *terrible* soda soap? So say the authorities."

If our friend had read the "authorities" closely, he would have found that by adding an excess of what he calls a "sufficient quantity of common salt" the formation of a soda soap will be prevented. In the first volume. (Philadelphia edition, 1818, page 405, of Knapp's Chemical Technology, may be found the following:

"When soap [meaning potash soap] is cut up into small pieces, and placed in a solution of common salt, saturated at the ordinary temperature, *no action whatever takes place*. The pieces of soap, far from being dissolved or softened, swim on the surface of the solution without ever being wetted by it. The solution of salt flows from their surface as oil from ice. Even after long immersion, no other result ensues than would occur if soap were plunged into mercury; instead of softening, its hardness is rather increased. If the solution of salt is boiled, the soap is softened by heat, and assumes the form of a gelatinous, or, rather, thick and doughy mass, which is equally insoluble in the saline solution, keeping perfectly distinct from it, or at most separating into flocks that swim upon the surface. These flocks harden when taken out, and cool down to hard soap. If the solution of salt is not saturated, but diluted to a certain extent, the soap and salt contend for the water after such a fashion that neither positively gets possession of it. The water is partly imbibed by the soap, but a part remains with the salt, so that a solution of soap is seen swimming upon the saline solution, which is now saturated, without mixing with it or dissolving, but still forming a distinct layer. It is only when the salt in solution is below *one-four hundredth of the liquid*, that the soap is not prevented by it from dissolving."

The facts above quoted are important to all who are in the habit of adding salt to a potash lye when boiling it with grease for making soap. It is easy to put in too much salt; and it is as easy to see why we qualified our remarks as to the *certainly* of getting hard soda soap by the use of salt as indicated.

In turn, it would not be difficult for us to criticise our critic; but as it is not likely our numerous readers would be benefited thereby, we shall let the matter pass; with the remark, that the manufacture and use of poor soap is on the increase in this country. Every where men use their little scientific knowledge to make money by shameless adulterations, by the production of inferior articles, and by the aid of the most enticing puffs.

L.

#### NORTHERN COTTON AND WOOLEN MANUFACTORIES.

As it may be interesting to the growers of Cotton to know something of the manner in which it is worked up in the large establishments of the North, we subjoin the following article from a New England paper. The writer is describing the "Pacific Mills and Print Works" of Lawrence, Mass.:

"This establishment is celebrated for its prints, delaines and challoes. The company, which has a capital of two millions of dollars, was organized in 1849, and commenced operations in 1851. The establishment consists of three painted buildings—the mill in front, the print works in the rear, and a large intermediate building.

That part of the main building in operation is 506 feet long, 72 feet wide, and seven stories high; when completed, it will be 806 feet in length.

Bleaching, printing, dyeing, &c., are carried on in the rear edifice the principal part of which is 950 feet by 60 feet, exclusive of two wings used for storage, offices, &c., each 350 feet by 40 feet, and three stories high. The intermediate building is 800 feet, by 50 feet, and is also three stories in height. If the various floors were all on one plane, the works would cover an area of more than 162 acres. These buildings constitute, it is believed, the largest cotton mill and print works in the world.

In that portion of the works now in operation, there are employed 52,000 self-acting spindles, 1,127 looms, 275 carding machines, 36 fly frames, 18 warping machines, and 27 dressers. The yearly consumption of cotton is 1,500,000 pounds, and of wood, 700,000 pounds. The average produce of cotton yarn per day is 3,500 pounds, and of woollen, 1,000 pounds. The printing room contains 12 steam engines, and 12 great printing machines, capable of giving from five to twelve colors at once. These beautiful pieces of mechanism are capable of running through 200 pieces per day, or an average of 75,000 yds. They are truly lightning machines. In the printing arrangements there is an investment of \$60,000 to \$70,000 for copper cylinders alone.

The engraving room, where designs are prepared and sketched, is an interesting department. A little host of sketchers and designers here exercise their ingenuity, taste, and skill to please the fancy of the ladies, who are to purchase the fabrics of the company. The sum of \$12,000 is annually spent for designs.

The chemicals and dyestuffs used, reach the value of over \$1,000 daily, and comprise an annual consumption of 800,000 pounds madder, 40,000 pounds of cochineal; and there are employed besides, 550,000 pounds starch, 4,000 gallons sperm oil, 2,000 pounds glue, 450 barrels flour, and numerous other articles. The gross annual amount of prints manufactured, reaches 7,000,000 yards, and of delaines and challoes 5,600,000 yards. The power which sets in motion the vast machinery of the Pacific Works is derived from five turbine wheels, each six feet in diameter, and calculated to work up to 275 horse power, but at present only exerted to about 150 horse power. The steam engines also furnish about 100 horse power. When the entire building is completed, the number of wheels will be increased to eight, two of them seven feet in diameter and of 350 horse power each."

Of the steam apparatus of the Pacific Mills the writer says:

"The steam for warming the premises in cold weather and heating the drying room—the steam for the printing engines, and for bleaching, dyeing, and other processes—is generated in 25 cylindrical boilers, each 28 feet long by 5 feet diameter, and which are now producing, in the aggregate, high pressure steam equal to 1000 horse power per hour; while in winter the volume is equal to 1700 horse power per hour. No fire is used on the premises, except in the great boiler hall, in the intermediate building; and in this department occur some items of consumption, viz: 10,000 tons of anthracite coal per annum, 1000 bushels of charcoal, besides over 100 cords of wood.

There are 1,300 persons employed on the works, one-half of whom are females, and the sum paid them annually is over \$360,000. In connection with the establishment is a library of 1700 volumes furnished for the use of the employes, who are required to contribute one cent a week for its maintenance and increase. There is also a reading room open every evening for the workers, in which thirty-two of the leading newspapers and magazines of the day are on file. Besides there is a lecture room where lectures are given. A relief society for the

benefit of its members in sickness, adds to the means of usefulness established by the company for its operatives, and to the funds of which it liberally contributes. The receipts from members last year were \$2,237, and the disbursements \$1,240.

### AGRICULTURE IN GEORGIA--FAIRS, &c.

*To the Executive Committee of the Southern Central Agricultural Society:*

GENTLEMEN—You will pardon the liberty I take in addressing you. Your high character warrants this belief. In the affairs of life, the wisest, even, may sometimes find food for thought in the suggestions of the unimproved.

The thoughts which follow and the expression given to them, have resulted from a visit to the late Fair. It was evident to all that there had been a decrease of interest in the exhibition of Georgia industry. This decrease was accounted for by the last unfavorable season and by the absorption of public interest in the Presidential election. This certainly will account for a degree of abatement of interest, but it still leaves much unaccounted for.

This falling off is ominous. It argues a lack of interest not only in Agriculture in its ordinary sense, but in progressive agriculture. I had almost said in the science of Agriculture; but the term, though often used, is not strictly correct. That cannot be called a science which is not positive and that cannot be positive, which is based upon the uncertain sunshine and showers. Agriculture uses science and is dependent upon its results, but it is not a science in itself.

Upon no persons does the advance of Agriculture so much depend as upon the Executive Committee of our State Society. If the farmers of the State are ignorant, indolent or obstinate, it is not the fault of the Committee. But we look to them to devise plans of improvement; to foster those which have been begun, and to invite to generous and legitimate rivalry, by offering premiums to intelligent industry.

The question arises, Is Atlanta the best place for the Fair? It certainly has an advantage in its facility of access and in its number of Hotels. But there are great disadvantages. It is a railroad city. Its inhabitants are engrossed for the most part in occupations which do not admit of interruptions. The place is too new to have attained that condition of society in which a general interest is felt in the object of an industrial exhibition. No one could fail to remark the very small number of the Atlanta population who were on the Fair grounds. The interest of the citizens of a place must add greatly to the interest of the Fair. By these remarks I do not design to cast a reflection upon the citizens of Atlanta. I am merely commenting on the unsuitableness of the place for a particular thing. If our Fair was a Railroad Convention, it would be a suitable location.

The town near which our Fair should be held, should be sufficiently large to accommodate visitors and not so large as to render the meeting of the Society an object of interest chiefly to the Hotel keepers. I do not presume to suggest a place—one might certainly be found combining the necessary requirements.

Might there not be selection of a ground for the Fair on which exhibitions of improvements, not only in practical but ornamental-agriculture might be exhibited? It will be a noble end of the Committee to aid in arresting the migratory disposition of our people. Every thing which tends to the improvement of our lands, which gives permanence and comfort to our dwellings, and which adorns both in reasonable limits, assists in rendering our population permanent—in creating a love for the soil and the Homestead.

Suppose our Fair grounds included a small stream of water in which there was a considerable fall. There are

thousands of persons in our State who have never seen a water ram in operation; who can well afford to buy one, and who would not hesitate to procure one, if they saw its cheapness and value; there are numbers who have not seen the simple process of churning butter by a water wheel, although they have a branch running by their dairy, which could do this at a cost of a few dollars. There are again numbers who have never seen a fountain, and who certainly would not be without this most pleasant luxury, after having seen one playing, and remembering that the little branch which has run idly at the foot of the hill before their doors, might so easily be made to dispense its pleasant coolness in summer and refresh the parched sod, which they have in vain sought in defiance of the sun, to render continuously verdant. The cost of these things are trifling. I am quite sure that the Fair grounds at Atlanta to which even a water cart was a stranger, would have been most agreeably improved by the play of a fountain. If such a location were selected, we might be benefitted by an exhibition on a small scale of the greatest desideratum to Georgia Agriculture—a well conducted instance of irrigation.

Many persons confound irrigation with warping or flooding; they suppose, therefore, that they can not employ the benefit of irrigation unless they own perfectly flat land. Whereas, on the contrary, there is hardly a farm in the primitive region of Georgia, a portion of which cannot be irrigated. There is scarcely a branch in Middle Georgia which might not be made of vast value to its owner. The same stream may water the hill side from its summit to its base. By this means we may defy the drouth of summer and increase greatly our crops—an improvement amounting to this, that we may have an equivalent to a good rain, exactly at the time we want it, and lasting as long as we wish it, and no longer. This is putting the advantages in a way that all can understand it. In addition, a hill side prepared for irrigation is at the same time protected by the necessary ditches against all washing from rain. At the end of the main ditch necessary for conducting the water of irrigation there must always be more or less fall, which can be applied to mechanical purposes when the water is not needed for the land.

But the farmers of Georgia have never seen this process of irrigation. There has been books after books written upon the subject, illustrated with diagrams, but they are of little use except to those who have seen a properly irrigated field.

Cannot the Executive Committee give us the opportunity? It might easily be shown on the Fair ground, if there were command of a proper stream—a very small one will answer, and one acre will serve as an illustration as well as fifty acres. I respectfully suggest whether several gentlemen cannot be found who will unite in sending to England, for a person thoroughly acquainted with catch work irrigation. The services of such an one usually commands in England about \$1000 per annum. There are single planters in the country who could make the outlay advantageously—certainly several might do it; his services might be secured to prepare a piece of ground for our next Fair. The irrigation of our undulating lands would introduce an era in our agriculture.

It is possible that new branches of Agriculture might be introduced through our Committee. For instance, large quantities of prepared Sumach are brought annually into this country, yet we have several varieties of the Sumach growing spontaneously. Will not one of these answer the purposes of commerce?

A large amount of European industry, and in climates most similar to our own, is employed in the cultivation of the Poppy. Will this cultivation answer with us? If so, it would be extremely lucrative.

The Hop is the most profitable of all plants when the



climate and soil suit it. The crop of an acre of Hops in Kent, in England, varies, in a good year, from \$1500 to \$2500 to the acre. It is there an expensive crop, from the great value of the land and from the poles necessary in its cultivation. Our lands are cheap and poles cost but little. Why may not this plant be cultivated with us, and to greater advantages than in England?

Soda, which is now so extensive an article of commerce is made from salt soda. This plant is cultivated in Spain and on lands which can be overflowed by salt water. Its cultivation is very profitable. Are there not thousands of acres of salt marsh on our coast now totally useless, which might be made valuable by the introduction of this plant?

Might not the connection of a Market Fair give increased interest to our annual exhibition and be of value to the State? There is nothing of this kind in this country either North or South. I have wondered at this, as these market Fairs are so numerous and of so great utility abroad. Sales are made by the sample of Grain, &c. These are always for cash. Bankers are present to make the necessary advances. To prevent fraud, the sample is divided between buyer and seller. Formerly we had no crop but cotton, which bore a fixed price. In consequence of our Railroad system, all other articles of farm produce have their market value. If it were understood that a large number of farmers would be present at the Fair, with samples of their cotton, grain, &c., buyers would be attracted and *vice versa*. If this be practicable, the concourse of persons at our Fair would be very great. And is it not practicable? I leave the question to be decided by persons more capable than myself.

Would it not be possible for the Society to establish an Agricultural School and Model Farm, and to place the Fair ground permanently upon the farm. Permanence is of great importance. It is, of course, impossible for the Society to make valuable improvements upon a spot of merely temporary interest.

If the Fair ground was connected with the school, an Economic Museum could be there established. Presents of Agricultural, Mineral, Commercial and Mechanical importance would be made to it. It would be to the interest of inventors and vendors to send samples of their wares. There is not a similar institution in Europe that would not interchange the products of the several countries. A valuable collection could thus be made up at small cost. With this Museum, a Library composed of Agricultural and other cognate works could be established, and some one connected with the school might be the curator of the whole.

In regard to an Agricultural School, it is proper to discriminate between such an one and the Manual Labor schools, formerly existing in Georgia. The writer was deeply interested in the first Manual Labor school established in the State. That, with all others like it, were failures. The reason was obvious. The boys going to the school were, for the most part, sons of wealthy farmers or planters, and it was impossible to keep them in order. The Agricultural was wholly subordinate to other pursuits. An Agricultural school should be composed of the sons of the poor, who have been accustomed to labor; and the amount of labor done should not only cover expenses, but leave a profit. This is done elsewhere and may be done in Georgia. A company of 100 persons who would subscribe 100 dollars each could make a successful beginning. Should the suggestion of such a school be favorably received, the details of most of the prominent Agricultural schools in Europe can be furnished, and would cheerfully be made public. These alone would fully occupy a newspaper article. We sadly want a class of educated overseers, such as could be furnished by a proper Agricultural school.

The State could be made to aid such a school by pro-

per effort. It has aided our Academic school at Athens. It has more recently aided the military school at Marietta. May the day be far distant when the Georgia Legislature shall prefer the sword to the plowshare. The appropriation to the Military School was right. But it is a safe precedent for a demand for aid to an Agricultural school. The noble devotion of Dr. TERRELL to the State University will answer a most valuable end to the class of students who can afford a collegiate education. But we need an institution for another class who cannot be brought into association with the students of college without injury to both.

There are other suggestions which I had designed to offer; but this paper is already too long. It may be an intrusion to call the attention of gentlemen so well skilled in Agricultural affairs as our Executive Committee to them. But whether valuable or worthless, they are at least the offering to the Agriculture of the State of a true-hearted

GEORGIAN.

January, 1857.

### STEERING SEEDS.

WE have been requested to put upon record a fact in relation to this subject, which may serve as a caution of some utility to a good many. A farmer soaked his seed corn this spring, as he usually does, some of it 12, and some of 24, 30, 35, and up to 48 hours. Towards the last days of his planting, the land became very dry, and as there was no rain for upwards of two weeks afterwards, there were many parts of the ground so dry that seeds could not possibly germinate. The consequence was, that much or perhaps all of the seed corn which had been steeped long enough to cause it to sprout, could not procure in the earth moisture enough to have the process, already commenced continued. The sprouts or swelled germ finding no moisture, rotted or died. Had as severe a drought as actually did occur, been anticipated, our informant would probably have preferred to plant unsoaked seed in the driest portions of his field. He thinks that when there is considerable probability of a "dry spell" after planting, it would be safer to plant seed which had not been steeped at all, than to put any seed into dry ground—already dry—which has become soft or commenced to swell or germinate.—*Exchange*.

MARRIAGES.—"Marriage is the mother of the world; it preserves nations, fills cities and churches, and peoples Heaven. An unmarried man, like a fly in the heart of a sweet apple, dwells in perpetual sweetness, but dwells alone and cannot enjoy it for want of company." Marriage, like the industrious bee, builds houses, forms societies and republics, sends out colonies and blesses the world. It is one of the good institutions which God at first gave us. Even in Eden it was not good for man to be alone. Man was too complete, as at first made, to be entirely happy. He was independent without having any depending upon him. He was not to be happy without having some other to care for; so the Lord God took from him one of his own ribs, and out of it made him a wife. Thus it needs a wife to restore man to completeness as such, and more especially to complete his happiness, by having a wife to depend on him.

GEORGIA WINE.—We are indebted to Col. Sullivan of Americus, for a bottle of excellent wine, manufactured by himself from the dark variety of the Scuppernon Grape. Its flavor and body is good, its complexion attractive, and its effects most salutary. Col. S. thinks this variety of grape on many accounts superior to most others. It is a free and sure bearer, ripens late, and is suited to almost any location, damp or dry. The grape culture in the South is likely to receive increased attention.—*Journal & Messenger*.





REDUCED FROM LIFE.

#### DEVON COW, KATE KEARNEY.

Calved Nov. 30th, 1850. Bred by Mr. W. Baker, Devonshire, England, Imported by and the property of C. S. Wainwright, The Meadows, near Rhinebeck, N. Y.

#### THE FARMER'S PRIVATE LIBRARY.

If there is any man who needs a good private library, it is the farmer. For, in the first place, *he has a profession* to master which requires as much study as any other, not excepting divinity, physic or law. This will appear evident, when we consider that a knowledge of the physical sciences generally is essential to the best understanding of agriculture, and then he must have immense practical knowledge of his art, of the markets, of the law of exchanges, of men and of things, in order to the greatest success. Besides, there is no reason why the farmer may not enjoy literature and science, books and lectures for their own sake, as well as the men of other callings. And there is the consideration, that he who tills the soil has considerable leisure in the course of a year to enjoy a good library, especially in the winter, by his own fireside.

In the next place, to use a pulpit phrase, "*Knowledge is Power*," to the farmer, as well as to other men. It is power to increase his income from farming, power to guide his family and "his affairs with discretion," power to give him an influence in his neighborhood and town, power to make his influence felt abroad through lectures, speeches, editorials, and books; for a farmer may devote his leisure to lyceum lecturing, editing, authorship, and even to serve his constituents of a winter in the State or national capitol, if he has the necessary requirements.

Thirdly, a farmer needs a good private library, or as good as his means will allow him to secure, *for the sake of his family*, as well as for his own sake. For he generally lives somewhat remote from the circulating library of the village, even if there is such a library; and the same is true of the winter course of popular lectures.

Thus he and his, being more confined at home during long winter evenings, need more the moral and mental enjoyment and stimulus of a library. And this library, to meet the wants of both the head of the house and his family, old and young, should embrace not only the reading works on agriculture, but books on history, politics and religion as well as biographies, travels, poetry, and miscellaneous literature, adapted to give the young a taste for reading, and the old the best solace amid their declining years. Many who read these lines remember with pain how much time they lost under the roof of a farmer in their childhood and youth, for the lack of such a library as we have described. They dozed away long and precious winter evenings for the want of books, books they wasted hours, weeks, months, or even years, at country taverns or shops, or else in bed, because they had not either acquired the love of reading, or else had not the books to read.

Fourthly, a farmer's private library is one of the best of *home attractions*. The importance of making his dwelling attractive to his wife and children, as well as to himself, cannot be over-estimated. If it is not rendered a place of happiness, the tavern, the shop, or some place of more doubtful influence may be sought for, while away precious time. The well filled library at home arrests the attention of every family. There are illustrated books for the children, books of adventure for the young and of solid reading for the lover of strong, mental food. Thus pure and elevated tastes are formed that will carry through life, hurtful places are avoided, and pleasures are realized, the necessity for constantly running to hear lectures no longer exists, for one can read superior lectures at home, and save exposure to night air and badly ventilated rooms.—*Merricks's Ploughman*.

# INFORMATION WANTED OF THE BERRY OF the China Tree.

EDITORS SOUTHERN CULTIVATOR—Having long suspected that there was more value attached to this berry than is generally known, simply from the fact that a tree bearing so large a quantity of berries, and as near perhaps a never-failing bearer as any other tree, and also observing that these berries are not the favorite or especial food of any kind of birds, the robin only eating them at such times as their ordinary food is scant, it follows as a matter of course, that these berries have a value not generally appreciated, or else the Great Creator is at fault, in creating so much for so little; which would be too serious an impeachment of Divine Wisdom, to be seriously entertained. Hence, as a matter of belief I think there must be great value in the China berry; and I am so strong in this belief that I for one am fully determined to plant a large orchard so soon as I can obtain a little more information in their favor. And I would ask any reader of the *Cultivator* to answer, as far as experience has taught, the following queries:

1st. Will sheep winter on them as their principal food and keep in good order?

2nd. The same of hogs; and will they kill pigs?

3rd. Will anything winter on them as their entire food, for two or three months, and keep in tolerable order?

These queries are few and simple, and I hope will be fully responded to, especially by those most experienced.

M. T. McGENEE.

Mount Elba, Arkansas, Nov., 1856.

## CHINESE SUGAR CANE.

GREAT excitement is being created throughout all parts of the United States in regard to the Chinese Sugar Cane, or Sorgho Sucre. The supply of sugar to the commercial world not keeping up to the demand, and the consequent large enhancement in price, induces a feeling of the highest satisfaction on account of the discovery of this new source of supply for one of the indispensables of modern civilization. There will, no doubt, exist a very general feeling on the part of farmers, to try a quarter of an acre, or so of the Sorgho Sucre. The great resemblance, however, which this vegetable has to the "Chicken Millet" should induce caution in obtaining a supply of the seed.—*Ohio Valley Farmer.*

## HILL SIDE DITCHING—ANECDOTE.

EDITORS SOUTHERN CULTIVATOR—The article of Capt. HARDWICK in a late number of the *Southern Cultivator* calls to mind an anecdote of the times when hill side ditches were comparatively unknown.

During the sitting of the Court at Watkinsville, a young lawyer, while enumerating the effects of a client, included his land among his moveable property. The gentlemen of the bar indulged in a hearty laugh at the young man's expense. The late witty Judge CLAYTON, of Athens, who was then Judge, interrupted the laughter of the lawyers by saying: "Why do you laugh? The gentleman is right. Land in Clarke county is moveable property—mine has gone down the Oconee long ago." Thanks to hill side ditches, this peculiar feature of Georgia land is ceasing to exist.

A SUBSCRIBER.

There cannot be much selfishness where there is a wife and family. There the house is lighted up by mutual charities; everything achieved for them is a victory; everything endured is a triumph. How many vices are suppressed that there may be no bad example! How many exertions made to recommend and inculcate a good one!

# THE FISH EXPERIMENT.—PROPAGATION and Domestication of Fish—Visit to Drs. Garlick and Ackley's Fish Nursery, near Cleveland, Ohio.

The artificial re-production and cultivation of fish, has for some time been practiced in parts of Europe. In France it is now carried on to considerable extent, and the produce of some of the streams and ponds, yield large profits. The subject is now attracting some attention in the United States. The New York State Agricultural Society, in their last premium list, have offered a prize of \$100 for the best essay on the "Production and Preservation of Domestic Fish for Ponds."

Garlick and Ackley, known as distinguished surgeons of Cleveland, Ohio, were the first, we believe, to introduce the artificial spawning and domestication of fish in the United States.\* Dr. Garlick being an enthusiastic in this line, commenced the business in connection with his associate, Dr. Ackley, upon the farm of the latter, two or three years ago. They made several trips to Lake Superior and Fort Stanley, in Canada, to procure trout for stocking their streams, and in every instance were successful, except the first, when they lost a large number of fish in transportation.

After this, with personal attention, they found that by reducing the temperature of the water in the vessels containing the fish, to 32 degrees, by the application of ice, the respiration and circulation in fish was so reduced that they experienced no difficulty in transporting them any distance with perfect success. In this way they have procured at different times, 150 foil grown trout.

Feeling an interest in the success of this enterprise, and while visiting Cleveland a short time since, we called on Drs. Garlick and Ackley, who very kindly conveyed us to the farm and fish nursery, situated about three miles from the city. The farm contains about 100 acres; through the timbered portion of it runs a ravine, abundantly supplied with never-failing streams of water. Across this ravine, dams have been built so as to form three ponds, connected by sluice-ways between. In the upper pond the young trout are confined by netting across the sluice. The second ponds are destined for the fish after they have become so large as to be able to protect themselves from the voracious appetite of the elder fish of their race.

At the head of a large spring, and near the upper pond, is situated the hatching house. In this house is a tank four feet wide by eight feet long and two feet deep. The water is received from the spring into this tank, and is discharged from a pipe near the top into the hatching boxes, ten in number, and so arranged that the first is higher in the series than the last, so that there is a constant stream of water passing from the tank above, through the two hatching boxes. In this tank we saw the *old* pet fish, "*Natal Queen*," the prolific mother of thousands. Her mate "*Triton*," like his sex sometimes in other departments of animated nature, had become somewhat unruly, and had been assigned his abode, for the time being, in one of the ponds with the family at large. Our friends have so educated and trained the old queen that she has become as tame as a pet chicken, and ate minnows from our fingers readily. This fish was taken from the tank and placed in a pan for inspection. She is like all of this family, truly beautiful. She measured about seventeen inches in length. Her weight we

\*We have shown, in previous numbers of this journal, that our venerable friend, Dr. BACHMAN, of Charleston, commenced the artificial production of Fish in my years prior to the experiments of Drs. GARLICK and ACKLEY.—*Eds. Southern Cultivator.*

now forget, but with careful feeding can be increased with astonishing rapidity. We were presented by the gentlemanly proprietors with a most beautiful engraving of her.

It is the intention of these gentlemen to have some of the old and a number of the young fish on exhibition at the Ohio State Fair the coming fall. The display of domesticated Salmon and Trout, it is said, constituted a most interesting feature at the great National Exhibition recently closed in France.

Dr. Garlick is now engaged in writing a series of articles on the "Artificial Reproduction of Fish," which appear in the Ohio Farmer. They will finally be published in book form, and will, no doubt, prove of immense value to farmers and others who now own streams and ponds in this country.

In every State in the Union, and in almost every country, there are numerous springs and streams that, with comparative little labor, may be turned to profitable account for the production of fish.

Where brisk, cool springs are not to be found suited for trout, ponds exist adapted to various other kinds of fish that delight in such water. In a day's ride through some sections of the country, we have frequently met with a dozen springs and streams that might be employed in this way. In France, and other countries of Europe, not only trout and many other kinds of still-water fish are propagated to a great extent, but salmon by thousands are reared to full size in a very short time. In the northern and eastern sections of our country, but more particularly near the Northern Pacific coasts, numerous places abound, most admirably adapted to salmon. It is said that a thousand lbs. of fish in proper places can be produced at a tithe of the cost of raising an equal quantity of meat.—*Louisville (Ky.) Courier.*

#### THE CHINESE PROLIFIC PEAS—LETTER from Col. J. B. L. Marshall.

EDITORS SOUTHERN CULTIVATOR—At the request of my friend, Mr. W. F. DOUGLASS, I give you my *personal knowledge* of the Chinese Prolific Pea.

I feel a great interest in the extension of this extraordinary Pea, and I am satisfied that if the Southern farmers will give it a fair trial, they will find it to be the *greatest pea both for table use and for feeding stock* now known. It must be admitted, by every reasonable and sensible man who will take the pains to inform himself, that it certainly is the *most prolific pea ever seen* or heard of. The extraordinary yield from one single pea gathered by Mr. DOUGLASS far exceeds anything of the kind I ever saw. It only remains to show, then, that it is a good pea for use.

It is a beautiful and *delicious pea for table use*; and as to stock, the hogs eat them with the greatest avidity; and the experiment having been fully tried by Mr. DOUGLASS to my certain knowledge, I can say with candor to the public that they not only agree with them, but *fatten faster than anything I have seen tried*.

It is a well known fact that pea hay is most valuable for winter feed for stock; and it will be needless to add that where there is so great a yield of grain that the vine increases in tenfold proportion. I will only say that on the  $1\frac{1}{2}$  acres Mr. DOUGLASS had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of ground of the same size.

If you think this statement will be of any importance to the public, or benefit to Mr. DOUGLASS, you are at liberty to publish it. Yours, &c., J. B. L. MARSHALL,

Assistant Engineer Little Rock  
and Napoleon Rail Road.

South Bend, Ark., Jan. 4, 1857.

#### THE MOON'S INFLUENCE ON MAN AND Plants.

SEPTIMUS PIESSE, a learned correspondent of the *Scientific American*, says:

The influence of the moon is admitted by all medical men practicing in India. From infancy the natives of tropical climates are taught to believe in lunar influence, and that with good cause, for the intimate connection which exists between the new and full moon, the disturbed state of the atmosphere, and the attacks of epidemic, has been well ascertained. Two hundred years ago a physician named Diemerbroeck, wrote a treatise on the Plague, in which he says: "Two or three days before and after the full moon the disease was more violent; more persons were seized at these times than at others." Many other authorities could be quoted to prove that the moon's influence is not to be regarded as purely imaginary, as is commonly the case. Many curious facts are recorded concerning the moon's influence upon the vegetable kingdom. It is stated that if peas are sown when the moon is increasing, they never cease to bloom; that if fruits and herbs are set during the wane of the moon, they are not so rich in flavor nor so strong and healthy as when planted during the increase. In Brazil, the farmers plant during the decline of the moon all those vegetables whose roots are used as food; and, on the contrary, they plant during the increase of the moon the sugar cane, maize, rice, &c. The English gardeners observe similar rules in regard to grafting, pruning, &c. From observations of Mr. Howard it appears that northerly winds are more frequent during a full moon, and southwest winds blow chiefly at the time of the new moon.—It is also remarkable that rain falls more frequently during the last quarter of the moon, and that not a twentieth part of the rain of the whole year falls at full moon.

NEVER GIVE UP.—Who are our rich men?—our distinguished men?—our most useful men? Those who have been cast down, but not destroyed—who, when the breeze of adversity swept away their props, sought new standards—pushed on—looked up and became what you behold them now. A glorious sentence and worthy to be inspired—*never give up!* Men are not made—they make themselves. A steady perseverance—a determination never to sink, though millstones were hanged about their neck—is the true doctrine. It is this that has made the wilderness to blossom, that has given wing to the ocean, filled valleys, leveled mountains, and built up great cities of the world. Who then is a fool, and yields simpering before the blast? Who is a suckling, and cowers before a cloud? Shame, shame on you. You are big enough to possess an iron heart, and to break down mountains at a blow. Up, and let this be the day of your redemption. Resolve to be a fool no longer—even if you are obliged to stand with a red hot iron upon your brow—never give up.

"JIM WATSON'S BOOK."—On the plantation of James Watson, near Port Gibson, Mississippi, may be witnessed an exhibition of memory that is truly remarkable. An African girl about fourteen years of age answers to the name which heads this article. It is the custom of Watson to give rewards for over-work, and during the cotton picking season the amount each hand picks is weighed twice per day—noon and night. This girl stands by the overseer, and listens to the number of pounds announced to each hand, and at night the result is reported with the utmost accuracy. Her correctness is repeatedly put to the test by Watson and others, who keep memorandums during the weighing, and a day or two afterwards she is catechised, and her memory found perfect. Mr. Watson works from sixty to seventy hands.

## CHINESE SUGAR CANE AS A FERTILIZER.

EDITORS SOUTHERN CULTIVATOR:

Among the innumerable advantages, which the public are already aware, belong to the Chinese Sugar Cane, one most important has escaped mention. For cheapness and value, as a *green manure*, this plant stands pre-eminent. It is time for the Southern people to awake to the necessity of improving their lands, and to subdue that greedy appetite, which takes everything from the soil and returns nothing to it. Patriotism, philanthropy, paternal love, and a far-sighted policy unite in demanding this of them. If the present system of cultivation is pursued much longer, our lands will be exhausted, our governments impoverished, our commerce destroyed, our cities in ruins, and our people driven like the poor Indians who preceded them, from the land of their fathers, before the indomitable perseverance, energy and *science* of the Yankee and the European. Another system might improve our soil, enrich our governments, increase our commerce, build up our cities, and render us a great, happy, and contented people. To do this, a complete revolution must be accomplished, old empirical notions must be eradicated, and *rational* plans substituted in their stead. To find out these by skilful experiments, and to prevail upon the mass to adopt them, is the noble and useful vocation of the scientific Agriculturist: for he who makes "two blades of grass to grow where only one grew before," is justly entitled to be called the benefactor of his race.

The three fundamental principles of planting, are deep plowing, thorough drainage and manuring. It is obvious that the latter is the most difficult to apply skilfully. The varieties of manure are innumerable. Almost every mineral in the earth, every gas of the atmosphere, every exhalation and excrement of the animal, and every respiration of the vegetable bodies give food to the plant.—To choose from all these, what can be applied to the crop with the greatest benefit, and at the least expense, is the object of the Planter, and evidently requires no small amount of study, judgment and experience.

Green manuring, so successfully and extensively employed in Great Britain, has seldom been used in this country, except by accident, in turning under the grasses, the spontaneous growth of fields suffered to lie out. The superiority of this manure over all others is easily demonstrable. From the food of the horse, for instance, a large amount of carbon, and a still larger proportion of nitrogen is extracted before it passes through the stomach, for re-producing the tissues and organs of the body; the amount of these gases, generated by the metamorphose of these tissues being mainly exuded through the skin. The excrement of the horse consequently cannot be as rich as his food. When this excrement is mixed with straw and urine, as in the common manufacture of stable manure, and suffered to undergo fermentation and decomposition, a large amount of nitrogen again escapes into the air in the form of ammonia and nitric acid. But when any green crop is turned under, the gases generated by its decomposition escape slowly and with difficulty through the pores of the earth, and consequently a greater amount remains there to feed the plant, than can be produced by a quantity of farm-yard manure, much exceeding the green manure turned under. This demonstrates clearly, that this manure increases the fertility of the soil beyond all others, for all organic manures are subject more to the same disadvantage as that of the farm-yard. Whether this superior will counterbalance or more than counterbalance the increased expense, if the expense be increased, is the next question; and one that can be solved only by experiment.

Clover and other long rooted grasses are principally used for this purpose, on the other side of the Atlantic; it is our object at present, to suggest as superior to them the

Chinese Sugar Cane, particularly to the Corn Planter; and for the following reasons: 1st. On account of its greater bulk. 2d. The luxuriance with which it grows. 3rd. Its richness in saline matters. 4th. Its similarity to Corn. 5th. On account of the cheapness of the seed, when the plant has become generally cultivated. H. F. P.

Nashville, Tenn., 1857.

## ONE OF THE ROADS TO CRIME.

One of the surest methods of making criminals is to degrade labor and pay undue respect to wealth. Men will run any risks to gain a position in society. The recent disclosures in the case of Huntington, Tuckerman, and other similar delinquents in this country; of Sadlier, Robson, Redpath, and others in England and France, prove that the desire to appear well in society, to be ranked among the happy few who live without labor and indulge in the elegancies of life, is one of the strongest incentives to crime. And it must be noticed, for the fact is painfully evident, that the false spirit of aristocracy which reverences mere wealth and scorns honest labor, is becoming alarmingly prevalent among us. It is time that the Press and the Pulpit, and every other instrument for modifying opinion, and producing a moral effect, were employed in checking the growing evil in question. It is especially the duty of parents to instill into the minds of their children just ideas on the true dignity of labor, and the worthlessness of mere extrinsic show; for the child that has been taught to regard wealth as the standard of excellence, and honest labor as degrading, will run a narrow risk of ending his days on the gallows or in the cells of a prison. A few nights since, a little child of some ten years, who should have been as guileless and innocent as a cherub, on being requested to dance with another child of her own age, shrugged up shoulders, and in her childish way, positively refused. On being asked why she hesitated, she said she couldn't dance with the other little girl because her father was captain of a steamboat. Of course the little creature was taught to regard the captain of a steamboat with disdain, and probably to look upon the children of all mechanics as below her, or she would not have dreamed of making such an excuse. It would require no gift of prophecy to foresee what must be the inevitable termination of a life which is commenced with such false ideas of what should constitute true claims to honor and respect.—*New York Times*.

## PEAS FOR HOGS—HEDGES AND FENCES.

EDITORS SOUTHERN CULTIVATOR—In your last issue I see, a gentleman advocating the doctrine of fattening pork hogs entirely on peas. From the little experience I have had in the matter, I think hogs should be taken from the peas and fed on corn, say one or two weeks before killing, for the reason that if the hogs are fed on corn a while before killing, the fat will be firmer or harder and will not drip as it will when fattened alone on peas. I may be mistaken in this; if so, I would like to know it. It is also my opinion it will not do to put stock hogs on peas.

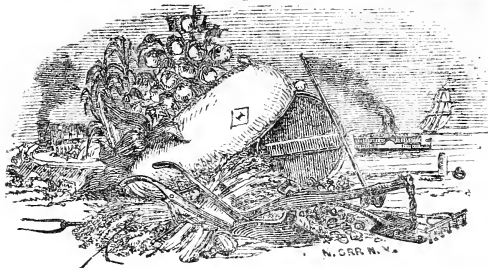
I am trying the Osage Orange. It is doing fine so far, and I think it will do when planted on the right kind of soil, and also rightly cultivated. I planted some where there was rock and it did no good. I have a mile of plank fence; plank and post furnished at \$360 a mile; white oak plank, post oak post. I think this cheaper than rail fence.

Yours, &amp;c.,

A. R.

LaGrange, Ala, 1857.

Feelings are stars, which guide us only under a clear sky; but better is reason, the magnetic needle, which directs the ship when they are concealed and shine no more.



# The Southern Cultivator.

AUGUSTA, GA:

VOL. XV. NO. 2..... FEBRUARY, 1857.

## OUR BOOK TABLE.

TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY. Vol. 15—for 1855.

We are indebted to the kindness of Col. B. P. JOHNSON, the able and indefatigable Secretary of the New York Society, for a copy of this volume for the year 1855. It contains the continuation of Dr. FITCH's work on Insects—an able Essay on Climate, by F. B. HUGH; Mr. HOWARD's Essay on Grasses; the second part of Watson's "Practical Husbandry;" the Address of Hon. SAMUEL CHEEVER; Farm Reports; articles on Drainage; Proceedings of County Societies; Report of the Secretary, &c., &c.; making a volume of 763 pages, very neatly printed and bound, and in every way creditable to the "Empire" Society of the Union.

TRANSACTIONS OF THE NEW HAMPSHIRE STATE AGRICULTURAL SOCIETY, for the year 1855.

This is the fourth volume issued by this enterprising Society, and we notice one feature in it highly worthy of commendation—viz: the Secretary has addressed a series of questions to the leading agriculturists in every town in the State, with reference to various matters of rural economy, and the amount of information which these queries elicited adds greatly to the interest of the work. The detail of experiments with new foreign seeds is also of much value. The Secretary, JAMES O. ADAMS, Esq., will accept our thanks.

THE CHINESE SUGAR CANE; Its History, Mode of Culture, Manufacture of the Sugar, etc. With Reports of the its success in different portions of the United States, and Letters from distinguished men. Written and compiled by JAMES F. C. HYDE, of Newton Centre, Mass. Boston: 1857. Price 25 cents.

This little volume is an additional evidence of the widespread interest which the Chinese Sugar Cane is exciting, and furnishes undoubted proof of its complete success as a sugar plant wherever Indian Corn will grow and ripen. It is peculiarly gratifying to the writer [D. R.] to witness the triumphant success of this plant, especially in the South as he was the first to introduce it into general notice and culture here; and has never for a moment flinched in his advocacy of its claims, despite the cries of "humbug" and

"Multicaulis," with which a certain class of "over-cautious" "old fogies" are ever ready to assail anything which is new, and outside of their experience. We have already devoted considerable space to the elucidation of the merits of this plant, and shall continue to furnish our readers with full details of such experiments as we may deem valuable. We have not the least doubt that another year will fully establish its claims as a Syrup and Sugar Plant, throughout the entire Union. Syrup of a fine quality has been made, from New Orleans to Maine, and from the eastern Atlantic to the Upper Mississippi—the seed, through the exertions of the Patent Office, Col. R. PETERS, ourselves and others, has been scattered far and wide, often without price, and always at a cost far below its real value; and the indications at present are that it will have a general trial throughout the length and breadth of the land. The result of this trial cannot but establish it as one of the staples of our country, and may in the course of a very few years render us almost entirely independent of foreign countries for our Sugar, which indispensable article of food is one of our very heaviest imports. Our Southern readers will do well to raise and carefully save all the seed possible during the coming season—as, from the more perfect development of the plant here, as a Sugar plant, and the difficulty of fully ripening seed at the North, our Southern raised seed will, probably be in demand at remunerating prices. At all events, it is well to save an abundance of it as food for stock and poultry, and for trying experiments in soiling, making forage, green manuring, &c., &c., on a large scale, another season.

We have yet a number of the pamphlets noticed in our December number (p. 375) which we will mail to all applicants who will furnish their address and enclose a postage stamp directed to D. REDMOND, Augusta Ga.

THE HORTICULTURIST, for January, is an excellent number. No gardener or lover of fine fruits and flowers should be without it. It is published monthly and may be had for \$2 per year, in advance, by addressing ROBERT PEARSALL SMITH, 17 and 19 Minor st., Philadelphia, Pa.

THE COTTON PLANTER AND SOIL, for January, appears in a very neat dress, and is full of matter especially adapted to the wants of the Southern Planter and Horticulturist. Published at \$1 per year. Address UNDERWOOD & CLOUD, Montgomery, Ala.

AGRICULTURAL BOOKS.—Mr A. SHERMAN, the Agent of C. M. SAXTON & Co., is still on his travels, engaged in the good work of supplying standard Agricultural Books to our planting friends in the interior. We hope he will receive a kind reception, and that every householder will replenish his book-shelf from the ample store which Mr. S. presents. Read the article headed "The Farmer's Private Library," which will be found in present number.

## ANSWERS TO CORRESPONDENTS.

BEEs.—E. R. D.—The work you desire—"Miners' Bee Keepers Manual"—may be obtained from C. M. SAXTON & Co., 130 Fulton street, New York, postage free, for \$1.

GRAPE CULTURE.—Rev. J. L. R.—We prefer the Catawba to the Scuppernon as a Wine Grape—though the latter requires the least trouble in cultivation. The Catawba grows freely from cuttings—the Scuppernon must generally be layered. Mr. AXR plants from 1,600 to 2,000 Catawba cuttings per acre, on land trenched to the depth of at least two feet. This trenching may be partly done with the plow, but the spade is, by far, the best implement, though, of course, the most expensive. A properly planted and managed Vineyard will, doubtless, be a good investment anywhere, in the South; though we have yet much to learn in the making and keeping of Wine. See an article on Grape culture in Tennessee, in our next number.

**GRAFTED TREES.**—J. A. McP.—If you wish to start a large Orchard at once, procure from some reliable Nurseryman a selection of the best varieties, (grafted or budded,) plant properly, and with careful after-culture, success is almost certain. See the various articles on the Pear, &c., in present number.

**"ELEMENTS OF AGRICULTURE," &c.**—W. M.—Write C. M. SEXTON & Co., as above, enclosing \$1.25.

**SUGAR CANE.**—W. T. S.—The advantage possessed by the Chinese variety over the true Cane is that the former produces an abundance of seed and will grow wherever Corn will ripen. Its product of saccharine juice, also, falls little short of that yielded by the true cane; while it yields two crops of matured stalks per season, anywhere South of latitude 34°. "Some five or six varieties of cane have been cultivated in Louisiana. None of them have ever been propagated from seed there; nor in fact elsewhere as far as known. Wray, in his 'Practical Sugar Planter,' remarks 'that no variety of cane is known to perfect its seed, (or indeed to produce anything like seed,) either in India, China, the Straits of Malacca, Egypt or the South Sea Islands; as in all these countries the cane is entirely propagated by cuttings.' In Louisiana the season of planting is in the fall, immediately after the grinding is over. The planters use generally for cane seed, the ripen part of the stalk. Some cut the cane in the middle, to use the tops for planting, and bring the lower joints to the mill; some, again, use the green tops alone for planting. In the West Indies, says Fleischmann, 'We are told that the few upper joints of the plant nearest the leaves, commonly designed as the cane tops,' are used as cane seed. Where the cane arrives to perfect maturity, where every joint is ripe and every eye well developed, the top points may answer, but in Louisiana, where the cane is never entirely matured, where it must be cut before the upper joints are formed, the tops are not fit for seed, and the result must necessarily be a bad one. Pieces of cane having from 5 to 12 or more joints are used for planting.' It will be seen that the true cane does not mature seed except in tropical countries, and that but one crop of canes per year can be obtained even there. You cannot fail with the Chinese Cane, if you will read and profit by all that has appeared in our paper. The French are making cider and alcohol in abundance from it, but we cannot describe the process, at present.


**SHADE OF TREES.**—Amigo.—Intelligent people, and even medical men, differ greatly in regard to the effect of shade trees around dwellings. One authority says:—The interposition of a dense forest, or a high wall, a chain of elevated hills, or any other natural or mechanical obstacle has been known to protect the inhabitants of villages, camps, of convents, and of single habitations, from the pestiferous influence of neighboring marshes. A notable instance of this sanitary principle is stated in respect to a convent situated on Mount Argental, near the village of St. Stephano, which for a long time was remarkable for its salubrity but when the trees were cut down it became extremely sickly. Others, equally well informed, regard the shade of trees and the dampness which it engenders, as unhealthy, and we agree with these last to a certain extent. Will our readers give us their views on the subject?

**PLOWS AND PLOWING.**—G.—The best turning plow we know of, is RICH'S Iron Beam, (or "Washington") No. 2. We may give you a short chapter on surface and subsoil plows hereafter. The expanding Horse Hoe is a very perfect implement for keeping the rows clean.

**SOILING CATTLE.**—H. A. B.—MR. NELSON will prepare an article on Soiling Cattle in the South, for a future number. In the meantime, see Stephens' "Book of the Farm," "Colman's Agricultural Tour," and other works on European farming.

**ROT BEDS.**—W. P.—We republish for you the mode of making the "German Hot Bed," as desired: "Take white cotton cloth of a close texture, stretch and nail it on frames of any size you wish; take two ounces of lime water, four ounces of luscious oil, one of white of eggs, two ounces of yolk of eggs; mix the lime and oil with very gentle heat, beat the eggs separately, and mix them with the former; spread this mixture with a paint brush over the cotton, allowing each coat to dry before applying another, until they become water proof. The following are the advantages this shade possesses over glass ones:—1. The cost being hardly one-fourth. 2. Repairs are easy and cheaply made. 3. Tight. They do not require watering; no water now intense the heat of the sun, the plants are never stricken down or burn, or checked in growth, neither do they grow in, long, sick, and weakly as they do in a glass bed, and with the abundance of light. 4. The heat arising entirely from below, is more equable and temperate, which is a great fact. The vapor rising from the manure and earth is condensed by the cooler passing over the surface of shade, and stands in drops

upon the inside and, therefore, the plants do not require as frequent watering. If the frames or stretchers are made large, they should be intersected by cross-bars about a foot square, to support the cloth. These articles are just the thing for bringing forward flower seeds in season for transplanting."

 In addition to our own remarks, under the head of "Work for the Month," we give the following seasonable hints from Appleck's "Rural Almanac."

#### THE KITCHEN GARDEN IN THE SOUTH.

In discussing this subject, the great difficulty is to keep within the moderate limits required in a publication of this kind, and yet convey the requisite information.

As a general thing, in the South, we consume too much of rich and highly nutritious food; and too little of vegetables and fruits. The blood thus formed is too thick, especially as perspiration is continuous and copious; and dullness and disease are thus induced. Vegetables and soups ought to constitute a large portion of our diet in hot weather; together with the free use of fruits before noon.

The Vegetable Garden is the most important appendage to a homestead. Select a tolerably level spot of land naturally rich. The exposure is of less moment than is generally represented; though we should prefer a gentle slope to the East, with protection, at some little distance from the cold North blasts. Water, from a running stream, pond or even a well, is indispensable. Ponds can readily be formed, and afford the best water. They may be kept full or well supplied from a well or spring, using a small wind mill and pump. The location should be one convenient to the dwelling, that the ladies of the family may have easy access; the garden being, usually under their exclusive care. It should also be accessible from the stable or farm yard, that supplies of manure may readily be had.

The shape should be an oblong square, that the plow and cultivator may be used as much as possible. One broad main walk up the centre, at least 3 feet wide with a gate at each end, wide enough for a cart or wagon to pass; with borders five feet wide next the fence, all around; and a walk inside of these borders, also five feet wide. Dwarfed fruit trees may be planted alongside of all the walks running lengthways of the garden, but not across the ends—then the plow and cultivator may have free access to the end walks, for mowing. The less complication in the arrangement and laying off of the vegetable garden, the better. Shade and ornamental trees, flowers and shrubs are out of place there.

The entire garden should be *trenched* if possible; or at least *trench-plowed*—that is, in breaking up, after a heavy dressing of manure has been applied, use strong teams and good, deep-tilling plows, running the plow in the *mean furrow in every furrow*; thus stirring up the soil to at least a foot in depth. It will unquestionably *pay* to trench with the spade and thoroughly enrich the garden to the depth of three feet; under-draining at same time when at all practicable. But with a few so, one foot in depth, and plentiful supplies of manure and of water, the very finest vegetables can be produced at all seasons in this climate. Neither labor in tending nor seed must be spared. Sow again and again, if necessary. The cost of seed is a mere nothing compared to the advantages of a plentiful supply of vegetable in their seasons.



## PLASTIC COTTON.—VALUABLE INVENTION.

WE noticed, at the recent Fair of the South Carolina Institute, in Charleston, several specimens of elegant furniture, the material of which (plastic cotton) is to be obtained at a very small expense, and the chemical process to which it is subjected being very simple. The article is very pliant and may easily be worked by the hand.—When dry it becomes hard and durable—qualities which render it peculiarly valuable in imitating the most elaborate wood carving. In the manufacture of rich furniture, models, decorative work, &c., it is exceedingly useful. The material is light and strong. The articles exhibited attracted general attention, and were greatly admired. The inventor, or discover, JAMES M. LEGARE, Esq., Aikin, S. C., offers the invention for sale, to be used within the United States or elsewhere.

This material (Plastic Cotton) is prepared from common cotton in two ways, as it may be required, for *working by hand* (No. 1), or for casting or pressing into moulds (No. 2).

The qualities which five years of trial have developed in No. 1, and which are *guaranteed* by the inventor, are: That the plastic material can be prepared at a cost per pound not exceeding the cost of ordinary cotton. That when manufactured, it is not warped or otherwise affected in any way by sun or fire heat, or by atmospheric moisture; has greater hardness than the woods in common use; can be used in mass or for slight open work with or without support, as it *always retains its fibre*; may be given any desired color or bronzed or gilded: may be attached to wood work without the use of glue, and so firmly as to resist the effects of warping in the surface to which it adheres; and under no trial has been known to crack.

Plastic Cotton No. 1 is especially applicable to the manufacture of antique and rich furniture, and to the decoration of churches or public or private buildings, &c., &c., at less expense and with much more ease than by carved wood, terracotta, or papier mache. No other substance in the arts can be used wholly without moulds.

Plastic Cotton No. 2—requires a like time for preparation—the cotton in either case being immersed from five to fifteen minutes only; can be prepared for use at from 10 to 15 cents per pound, which is less than the value of good frame composition, and as the plastic cotton is much lighter, it, of course, goes further in use; that it may be used in any degree of softness, and cold or hot, and never adheres to the mould; takes a sharp, clear impression; is tough and flexible when in use, allowing complex and undercut moulds to be employed; becomes very hard and capable of polish; does not crack; and will readily take any of the preparations now employed for gilding. It resembles gutta picha in its crude state, and in the ease with which it may be softened by heat, but is much more elastic; contains no resinous ingredient whatever; may be used in conjunction with No. 1, or alone.

Plastic Cotton No. 2 is applicable to all purposes to which papier mache, frame composition, &c., &c., are now applied, such as interior decoration, frames of all kinds, and any purpose requiring moulding.

## TEXAS MUSTANG WINE.

WE have received through ROBT. NELSON, Esq., from Dr. C., of G., Texas, three bottles of native Wine from the Mustang Grape. No. 1. The pure juice, only pressed and filled into a cask, from which it had been drawn constantly for daily use. It is exceedingly high colored, being of a deep crimson hue. It had some resemblance to claret, and might, perhaps, by proper treatment, make a tolerable good claret. It will, however, at any rate, make a superior vinegar.

No. 2. About a pound of sugar had been added to a gallon of juice; it was not so good an article as

No. 3, which was a pretty fair wine, though perhaps too much sugar had been added. It was, unquestionably, the best of the lot, and resembled somewhat the Malaga of our manufacturers.

Considering that these wines were but a few months old, and made in a rude way by persons who are ignorant of the process of making wine, we have no doubt, that a fair article can be made from the Mustang Grape, which grows spontaneously and in such an abundance that large quantities can be gathered; in fact Dr. C. assures us that he easily could have gathered one thousand bushels.

As the juice has a good body, there can be no doubt that a good Cognac brandy could be made from it.

COTTON PACKING.—The Chamber of Commerce, of New Orleans, has issued a circular for general distribution among factors, merchants and planters, in which complaint is made of the practice of false packing cotton. The Chamber has determined to endeavor to put a stop to the practice, by throwing all the burthens of expense, which accumulate upon such practices, upon the planters. The following is the pointed resolution adopted:

*Resolved*, That in the case of falsely packed cotton—“plated,” and packed with evident intent to defraud—wherever it be discovered, and the marks are so preserved as to be identified, it should in the opinion of this Chamber, be restored as nearly as possible to its original condition, and sent back until it reaches the door of the packer, with all its accumulation of expenses. It is to be presumed that many, if not all, such cases originate in the malice or dishonesty of employees, and the course recommended would be likely to induce such vigilance on the part of the planter as to guard against the recurrences of facts involving his good name and interest.

“LOVE AFTER MARRIAGE, and Thirteen other choice Novelletes of the Heart,” by Mrs. CAROLINE LEE HENTZ, has just been issued by the well-known publishing house of T. B. PETERSON, 102 Chesnut street, Philadelphia.—The numerous admirers of Mrs. HENTZ will find this volume a rare treat. It may be had at \$1.25 bound, or at \$1 in paper covers. Sent per mail, *free* of postage, by enclosing the price to the Publisher, as above.

CATAWBA BRANDY.—At the last meeting of the American Pomological Society, Col. WILDER, the President, stated that Catawba Brandy (made almost exclusively, at Cincinnati,) has been purchased at \$5 per gallon, for exportation to France, for the purpose of flavoring foreign liquors.

## THE COTTON CROP OF 1856.

In order to ascertain the extent of the crop, Gen. McQueen, Member of Congress, from S. C., adopted the happy and reliable expedient of addressing letters to the Representatives from the cotton-growing States, and from their several responses he has made up the estimate. According to his figures, the crop will not exceed 2,700,000 bales—about 800,000 bales short of last year. The estimates for the several States may be summed up thus:

In Texas the crop will exceed that of 1855 by 20 per cent., in consequence of increase of land in cultivation and hands from immigration. In some portions of Arkansas, the increase will be 10 per cent., from a similar cause, while in other portions it will fall short 20 per cent. Louisiana reports the crop 20 per cent. short; Mississippi from one-quarter to one-half short; Alabama, Georgia, Tennessee, North Carolina and Florida, tell a like story, and in South Carolina Mr. Orr estimates the crop at one-fourth short of 1855; Mr. Keitt at one-third short; Mr. Brooks at one-fourth short; and Mr. Boyce and Mr. McQueen at more than one-fourth short.

## Horticultural Department.

REPORT OF THE COMMITTEE AD INTERIM  
of the Pomological Society of Georgia.

YOUR Committee would respectfully report that quite a large number of fruits have been submitted to them for examination, the past season, of which several seem worthy of general cultivation. Among these are:

1st. *Princess Paragon Peach*; ripe specimens were received from Peters, Harden & Co., Atlanta, Ga.; ripe August 19th. Fruit large, oval, one side larger than the other. Skin downy, yellowish white, dotted with red, and in the sun nearly overspread with dull red. Flesh white, melting and juicy. Quality best. Freestone.

2nd. *Baltimore Rose(?) Peach*, (from the same parties). Fruit large, roundish, tapering a little to the swollen point, suture extending more than half around. Skin creamy white, with red dots and a fine red cheek. Flesh greenish white, red at the stone, to which it adheres, juicy, melting, sweet and excellent.—quite equal to the Old Mixon Cling, with which it ripens, August 24th.

3th. *Snow Cling*, (also from Peters, Harden & Co.) is a very sweet and juicy Peach of entirely too small size to merit further propagation; ripe August 20th.

4th. *Large White Cling*, from Peters, Harden & Co., bought by them as Stewart's Late, is another peach of the highest character, ripening about the 20th of August.

5th. *The Long Grape*, from Dr. C. W. Long, Athens, Ga. This fruit was found over 30 years since by Col. Jas. Long on his plantation, near Danielsville, Ga. The vine makes a vigorous growth; leaf is heart shaped, slightly lobed and similar in shape to the Lenoir. Bunches of fruit somewhat shouldered, very compact, of medium to large size. Skin thin, dark purple, with a thin bloom. Berries rather small (size of Lenoir), tender, very little pulp, pretty sweet, vinous and very good. This grape promises to be valuable for wine, being a most abundant bearer and producing a good, sparkling wine. Ripens the last of August—three weeks later than Lenoir.

6th. *The Jackson Cling Peach*, a Seedling variety, from Mrs. Col. L. A. Franklin, Athens, Ga. Fruit large, oblong, with a very large swollen point. Skin rich dark yellow, covered with dark red in the sun. Flesh rather firm, orange yellow and dark red at the stone, very juicy, sprightly and rich; distinct from the Lemon and Blanton

Cling. Quality best. A delicious peach, and it is thought unusually hardy, not having failed of a crop in eight years. Ripe August 20th.

7th. *Pearl Cling*, also a Seedling of Mrs. Franklin; ripens at the same time. Fruit large, round, suture extending three-quarters around the fruit. Skin creamy white, profusely dotted with red and a rich red cheek. Flesh firm, white, red at the stone, vinous, juicy and excellent. Very good or best.

8th. A large Seedling peach (freestone) sent Sept. 1st by J. Van Buren, Clarksville, Ga., similar in form to Heath Cling, was received too green to decide upon its quality.

9th. *Pace or Columbia Peach*.—The largest specimen of this variety we have seen this year was sent in Aug. 26th by Jeremiah Gray, of Clarke county. Too well known to need description.

10th. A late summer apple, also from Mr. Gray, on which we will not report until we get the name.

11th. *Stephenson Cling Peach*, from Thos. Stephenson, of Clarke county, is of the Blood Cling family hybridized with some light fleshed variety, or as if it is a "half Indian Peach." Size large, roundish, suture distinct. Skin very downy, of a creamy tint, shaded with flesh color, the tint deepening in the sun, and passing through deep pink to a dark dull purplish red where fully exposed. Flesh white somewhat tinged with red and deep red at the stone, very tender, melting, juicy and of a delicious vinous flavor. Quality best. Sept. 1st.

12th. *Louise Bonne de Jersey Pear*, from Peters, Harden & Co. Very fine. Sept. 6th.

*Beurre Bose, Beurre Diel and Napoleon Pears*, from J. Van Buren. Very fine.

*Surpass Virgaten*, from Peters, Harden & Co., is most delicious.

13th. *Albert's Late Rareripe Peach*, from Peters, Harden & Co. Glands globose. Fruit very large, roundish, suture slight. Skin not very downy, yellowish white, sprinkled with red dots and with a marbled red cheek. Flesh pale, light red at the stone, very sweet and juicy. Very good. Freestone. Sept. 6th.

14th. *Golden*, from Peters, Harden & Co., but not of sufficient merit to justify a description. Sept. 6th.

15th. *St. Michael Peach*, Glands reniform, a beautiful Southern variety of the Pace or Columbia type, but rather later and better than that variety; very large and globular. Skin downy, bright yellow striped and marbled with dull red, suture slight. Flesh yellow, slightly marbled with red, near the apex the red not reaching to the stone, sweet juicy and very good or best. Sept. 10th.

*White English*—Late White English or Heath.—Beautiful specimens of this noble and well known cling have been handed in. Those from Gov. W. Lumpkin, Dr. R. D. Moore, Mr. Waddell, Mr. Pridgen and Mr. Donnahoe, of Athens, and Peters, Harden & Co., Atlanta, and one of the same class from Mr. Nelson, were all fine. Ripe gradually from the 6th to the 20th of Sept.

16th. *Te Kalon Grape*, Peters, Harden & Co., ripens early in September and very good, but said to be a very poor bearer by the growers.

17th. *Blond Grape*, beautiful bunches from Peters, Harden & Co., and from Dr. J. C. Orr, were received early in September, perfectly ripened. A desirable variety, but requires careful pruning and cultivation.

18th. *Olio*, from Peters, Harden & Co., is a very fine tasted Grape, but the berries are entirely too small.

19th. *Catawba Grape*; magnificent bunches, from Mr. Axt, through Dr. Linton, the flavor of which did not belie their exterior.

20th. *Raymond Cling*—large, roundish, slightly oblong,

suture shallow, but distinct. Skin downy, yellowish white at apex, but nearly or entirely covered with different shades of red. Flesh white, juicy, vinous and very good. Ripe middle of Sept.

Several Seedling Peaches were received at this time from Dr. J. Orr, J. H. Coult, of Athens; R. Nelson, Macon; and Peters, Harden & Co., Atlanta; some of which were of large size and good quality, but none quite equal in flavor to other varieties ripening at the same season.

21st. A Seedling Apple, raised by Mr. Mangum, and sent to the Committee by Peters, Harden & Co. Fruit large, roundish, much flattened, stem short in a regular cavity. Calyx open in a deep basin. Skin, yellow striped, and washed with varying shades of red, a few russet specks. Flesh yellowish white, fine grained, tender, moderately juicy, with a fine mild Summer Pear main flavor, very good or best. Ripe September 12th.

22d. *Donahoo Cling*.—Glands reinform. Fruit very large, roundish, suture quite deep on one side and visible entirely around the fruit. Apex depressed, or with but a slight swollen point. Skin creamy white, beautifully dotted and tinged with red in the sun. Flesh white to the stone, exceedingly juicy, excelling the Heath Cling in tenderness of texture equally rich and luscious. A most desirable peach. Ripe Sept. 10th to 20th. Different from Heath in shape, and still better in quality. From Mr. Donahoo, Clark county.

23d. *President Church*.—Glands reinform. Size large, roundish, inclining to oval, suture shallow, often a mere line, with a small point at the apex, which is rarely depressed, with pale red in the shade, and beautifully marbled and washed with dark red in the sun, the exposed specimens are nearly covered with dark red; in size and color it somewhat resembles the Late Admirable, and is quite as fine a flavored peach. Flesh pale red at the stone, very juicy, melting, of delicious flavor, the fruit free from rot. A great acquisition. A Seedling, raised by Rev. A. Church, D.D., President of Franklin College, Athens, Ga.

24th. *Oconee Greening Apple*, from Mr. Pridgeon, Athens, Ga. Fruit very large, roundish, flattened. Skin smooth, green turning to yellow, when ripe a little brownish in the sun, russet about the stem, with a few scattered russet dots. Calyx open in a shallow slightly furrowed basin. Stalk very short in a rather deep regular cavity. Flesh yellowish, fine grained, crisp, abounding in a delightful aromatic lively sub-acid juice. Quality best. Original tree stands on the banks of the Oconee River, a little below Athens. Ripens from October 1st to December.

25th. *Yapp's Favorite Apple*, from Robert Nelson. Fruit large to very large, roundish, somewhat conical. Skin oily smooth, greenish yellow with a blush in the sun, sprinkled sparingly with russet dots, a little russeted about the stem, and somewhat marbled with dark patches made up of minute black dots. Calyx open in a deep basin. Stalk short, in a deep cavity. Flesh white, fine grained, tender, juicy, almost melting and of a most grateful sub-acid flavor. From Laurens county, in this State. Quality best.

26th. *Horton's Delicious Peach*, from John T. Grant, Esq., of Walton county. Tree bought of Mr. Camp, of Newton county. Fruit large, round, a little oval, depressed at the apex. Point very small and within the depression. Suture shallow. Skin moderately downy, of a rich creamy white with a faint blush in the sun. Flesh white to the stone, with the exact flavor of a Heath Cling. Quality best. Oct. 10th.

27th. *Gauts Cling*.—A Clingstone Peach from Mr. J. T. Grant. Fruit medium to large, oblong, tapering to the prominent point. Suture well marked. Skin pale creamy white, quite downy and pretty much covered with dull

red. Flesh pale red at the stone, juicy, tender and when fully ripe very good.

28th. *Athenian Cling*, from Henry Hull, Jr., Athens. Fruit very large, oblong, depressed at the apex. Suture a mere line. Skin very downy, yellowish white, marbled with dull red in the sun. Flesh pale red at the stone, rather firm and rich, of a high vinous flavor—a very great acquisition. This and Horton's delicious are the two best October Cling Stone Peaches, and they are of flavor totally distinct from each other, one a very sweet and luscious, the other of a brisk and vinous flavor.

As we are closing this report, three promising late peaches have been presented by Mr. Y. L. C. Harris, and a box with a great number of varieties of fine apples has been received from J. Van Buren, Esq., Clarksville. On these the Committee will report hereafter through the agricultural Press.

All of which is respectfully submitted.

WM. N. WHITE, Chairman.

Athens, Ga., 1855.

#### LOW FRUIT TREES—CLOSE PLANTING, &c.

At a recent discussion in the American Institute Farmers' Club, on the subject of "*Orchards—How to grow and preserve them*," our friend, T. W. FIELD, Esq., of Brooklyn, gave utterance to the following very pertinent and sound views, nearly all of which we entirely endorse:

Mr. Field said that it is often asserted, that "the generation which plants trees is not the generation which eats the fruit." He thought that depended upon the way they plant. Beyond all question the form of tree best adapted for all the functions of growth, health and productiveness is the pyramidal or conical, *branching from near the ground*. The tree produced by a seed dropped into cultivated ground or grown in an open plain, untouched by the pruning-knife, is much more nearly our model than the artificial thing whittled up to a single shaft in the nursery.

Nature needs but little assistance, and that little in the right time and place. A single terminal bud pinched off the young shoot in its first midsummer growth will do more toward affecting the shape which nature herself is constantly re-producing, than all the barbarous surgical operations performed by pruning knife, saw and axe.—The continually decreasing longevity of our fruit trees is without doubt accelerated by the continually increasing artificial structure. A trunk six to ten feet high is no more necessary to the perfect structure of a tree than a neck of equal length to a man. It is quite as superfluous to a tree as a gutta-percha tube 10 feet long is to a human being to draw all his sustenance through. The advantages of a low structure of tree are:

*First.* Longevity—by conforming more perfectly with nature, by less exposure to accidents from storms, and by interfering with less violence to its organism in heavy pruning.

*Second.* Hastening of the production of fruit. Fruiting of the pear and apple is lessened to six years [in the South to 2 or 3 years, from the graft or bud.—Eus.] instead of twelve, by not wasting a long period in producing a useless trunk; by not requiring an excess of sap; to provide for the waste in travelling up a long, naked trunk, exposed to surface evaporation, in the fervent heat of summer; and by a quick maturity of the fruit bearing branches from not being early deprived of sap-bearing leaves. The ground is mulched and protected from the parching heat of summer by the low branches, and a more generous and continual supply of fruit sap provided.

*Third.* A much larger number of trees may be grown

and fruited on a given area of ground. The same amount of foliage and fruit-bearing branches condensed into a low pyramid will not cover and poison with its shadow one-quarter of the area, as if in a large straggling growth, elevated on a trunk eight feet high.

In order to produce a large quantity of fruit, then, plant a large number of trees on a small plot of ground, cultivate and manure them well, [Yes! that is the whole secret. *Plant properly at first, then cultivate and manure well regularly afterwards.*—Eps.] and a few apples or pears from each tree will afford a large total. Plant 300 trees on an acre, instead of thirty, twelve feet apart each way, instead of forty, and if the next generation find them too thick, after having afforded the planter fruit for twelve or fifteen years—why, as they cost nothing, let the lucky generation cut down the excess.

In my own grounds I have three thousand apple and pear trees branching from the ground, planted ten feet by five. Such close planting as this is, of course, unnecessary where land is abundant and cheap; but the usual space between our trees may be lessened with benefit.—Eps. Most of them are in bearing their third and fourth year, and only when crowding too closely will every alternate row be removed. Thus may the generation which plants eat the fruit of its labor and be satisfied.

Dr. Waterbury complimented Mr. Field upon his essay on the theory of growing trees, and said in his opinion, that the great want of this country was more agricultural theory. A man may practice as his father did, but if he does so without any theory, he is like a machine, and does his work without a thought why or wherefore, or whether he might work in a different manner, and gain a greater product. Upon the subject of growing trees, how few men have any theory upon the law of nature that makes them grow. No tree can be judiciously pruned without theory, as to why and for what purpose a tree should be pruned.

Mr. Pardee said that the reason why Wayne county, New York, gave more good market apples than all the counties west of it, was because the farmers commenced right, with well-planted, grafted trees, introduced by a family by the name of Foster, who were pioneers in the first settlement. Some of the apple trees planted thirty years ago produce now from ten to twenty barrels a year.

Professor Mapes said, in setting peach trees, let them stand an inch higher than in the nursery. In planting peach stones, set them butt up and out of ground. In trimming, always cut next to a single bud or a triplet bud; in the latter case, pinch off the two outside buds.—Never cut off a limb at a double bud. Peach limbs should be shortened in every year. Upon this plan and in this way the trees will last many years. Dirt should never be piled or suffered to accumulate around the stem.—Never cut off the large limbs of peach trees. All Jersey peach growers know that they cannot grow peaches, or make their trees live without working the ground. [But this working should be shallow near the tree, so as not to injure the roots.—Eps.]

Mr. Field said that any interference with the wood of trees over one year's growth is injurious. If the limbs are cut while succulent, the wound heals at once.

Solon Robinson exhibited some grape vines with a remarkable luxuriance of roots, to illustrate the great advantage of a deep preparation of the soil to grow vigorous plants and urged the necessity of digging large deep holes for all trees when transplanted.

Mr. Wagner stated that the ground for his vines was carefully dug four feet deep; and then the plants, when taken out for transplanting, are removed with all the roots, and set in similar ground start at once into bearing vines.

There was exhibited a beautiful parlor ornament, form-

ed of a variety of growing plants, under a glass shade, that fits so tight upon its base as to prevent evaporation, and thus keep the plants perpetually green.

#### PEARS.—PROFITS OF—CULTURE, &c.

Why is it, that even at this time, after many of the large nurseries have for years sold thousands of dollars each, of the choice kinds of Pear trees, that not one Pear of fine quality is ever to be found in our markets? Where do they go if grown, or have they all failed and refused to fruit? Look to the large cities, and any confectioner or fruit dealer will tell you, that so great is the demand for the first class of Pears, that those who grow them find a ready sale to the first storekeeper to whom they apply, and hence that they are free from the necessity of employing middle-men as brokers, and therefore do not send them to market.

During the last three years, the fruit dealers of Broadway, New York, have been unable to find a supply, and even now we find in their windows great quantities of Pears imported from France, and like our own, sold at 25 to 50 cents each. Many have been purchased in France, at 10 to 20 cents each, and have paid a large profit to the importers.

We can readily understand that our country readers can scarcely believe that buyers can be found to pay such prices, but they are mistaken. In large cities we have a class whose fathers, and not themselves, earned their fortunes, and we are sorry to say that thousands who have become rich by their own successes, ape the habits of those who inherited their fortunes, and the strife now is among these two classes, who shall outvie his neighbor in extravagance. Others who are still engaged in business, ape the retired and wealthy portions of the community, and many an inmate of a store front house spends ten or twenty thousand dollars per year, rather than be surpassed in extravagance by either the two generations of aristocrats or the retired merchant princes.

Temperance is now the order of the day in fashionable circles, and those who formerly drank wine at \$5 per bottle, now eat Pears at \$5 per dozen. Do not fear that this class of consumers will pass away, or that a change of fashion will throw them back to wine instead of fine fruits. Not so—the march is onward, and the demand must be supplied. France, with her thousands of acres of fine Pears, can spare but few, and that only at particular seasons of the year for export. We have now more than 1000 kinds of Pears, and many of them worthy of cultivation. Does any reader believe that one farmer in 1000 is aware of this fact? Do even the dealers in our markets know anything about fine Pears? Why then do not our farmers near large cities, or indeed distant from them, raise fruit worth from \$25 to \$75 per barrel, rather than pay the same freight on barrels of poor Apples or Peaches, worth from \$1 to \$3 per barrel? But, says the old style operator, "If we all do it, they will not sell at such prices." Very true; but all will not do it, and only those who do it properly can do it at all. We had many dwarf trees this year bearing 200 Pears, which we sold at 12 cents each; and if ten years ago, when we commenced by putting out a few hundred Dwarf Pear trees, we had put out five acres, the crop of this year would have given us four times the value of the land, including the cost of trees and cultivation.

Last autumn and this spring, indeed every autumn and spring, have found our nursery-men unable to supply the demand for Dwarf Pear trees, and thousands of dollars worth are annually imported from France in addition to some growth. Where are the Pears? Why, many of the growers have put their trees in the ground, and have never given them the necessary attention to secure profitable results; others have put them out improperly as to

depth, leaving the quince roots only in the ground, and after a few years they have ceased to bear. But some have both planted and cultivated properly, and these have profited, and will continue to profit largely by Pear culture. Why is it that the whole Agricultural and Horticultural community are not alive to these facts? Simply because not one in one hundred subscribe to an Agricultural or Horticultural paper; and among those who do, many from mistaken economy select such as devote two-thirds of their columns to *balderdash*, not connected with the legitimate uses of an agricultural paper. It is either true or false, that choice fruit-culture, *properly pursued*, will pay large; it is also true that badly pursued, like any other business badly pursued, it will break its votary. We say, and our saying accords with our practice, that it will pay largely, that it does pay us largely, and our past articles have shown how it may be done. Let our readers be up and doing; there is no secret about it, but simple truths alone, such as any intelligent man may follow. Should we not be ashamed at finding foreign fruits imported into our large seaports and sold at such prices as if raised here, would pay twenty times or more the profit per acre that can be realized by raising any of our great staples?

Much can yet probably be done to improve fruit-culture beyond the point already attained. We saw two Pears at the Farmers' Club of the American Institute last month, which far surpassed anything of the kind before exhibited. They were grown in California, and are more than double the size of the same kinds grown here. They would have sold for \$1 each from any Broadway window. Why should the enquiring mind despair of duplicating such growths here? Have not many doubled their own crops by superior cultivation? And why not the size of their Pears? The one was presented by the Rev. Ely Corwin, of San Jose, California, Recording Secretary of the State Agricultural Society, of a species called the "Pound Pear," grown by E. L. Beard, Esq., of San Jose Mission, weighing 2½ pounds; girth 14½ inches; circumference, longitudinally, 21½ inches.

Mr. Wheeler, of Sacramento, sent also a Pear—dimensions, 15½ by 19 inches; weight, 33½ ounces—exhibited by H. Hill Wheeler, Esq., of Hillard Terrace, New York. —*Working Farmer*.

[Dr. J. M. Ward, of Newark, N. J., also exhibited, last fall, the *largest* Pear ever raised this side of California. It was of the *Duchesse d'Angoulême* variety, grown on a dwarf tree, and weighed, when picked, between 34 and 35 ounces! All the Northern and European varieties of the Pear are much improved in *size* and *quality* when properly planted and cultivated in the South. We are happy to state that Pear culture is on the increase among us, and trust that our readers will fully avail themselves of the undoubted advantages of our climate.—Eds.]

FARM GARDENS.—Mr. R., at a late meeting of the Farmers' Club, advocated planting everything in long rows, so that nearly all the labor of cultivation can be done by the horse hoe, and the persons who cannot find time for spade cultivation will not neglect, as they now do, this valuable aid to family economy and health, the farm garden. What is most needed now is, for us to endeavor, by constant reiteration of the subject, to induce farmers to cultivate and eat more garden vegetables. We must keep talking of what it is best to raise, and how to plant and sow, and tend and make produce in the easiest manner,

## RAISING MUSHROOMS.

Mr. Blot, a French gardener, near New York, states that he has a garden at Harlem where he can grow eighty to one hundred quarts a day of mushrooms upon an acre. The beds are made at the bottom of trenches three feet deep rounded up fifteen inches high, the trenches being covered over with boards. A bed will last five or six months without renewing. The plants come naturally from decomposing horse manure, but he hastens the growth by planting the spawn or seed of the mushroom, which is to be found in old beds of horse manure, in a suitable state of decomposition. The plants continue growing in the trenches summer and winter, and are gathered daily as they come to perfection, and sold to restaurants and hotels at about 37½ cents a quart. The supply is very much behind the demand, and in consequence large quantities are imported in a preserved state. Mr. Blot states that there is nothing in the climate to prevent growing in New York all that the city could consume. The following calculation will show the profit of growing mushrooms:

To cultivate an acre, two men and two horses would be required. Expenses of horses, say.....	400
The labor of two men, say.....	730
Rent of an acre of vacant city lots.....	400
Total.....	\$1,530

A sale of 80 quarts a day at 36 cents will produce \$28 80 per day, or \$10,512 per annum. This would give \$8,982 as the net profit of one acre of the many vacant ones lying idle in and about this city, and we are assured that it would take many acres to supply the demand at the price stated.

PEACH WORMS.—Boiling water, says the *Horticulturalist*, is a most excellent application in the spring of the year, for diseased peach trees, and is a certain remedy for the peach worm. A correspondent very effectually excluded the peach worm by digging a trench around the foot of the trunk, forming a cavity a foot in width and four inches deep, and then pouring into this basin a very thick whitewash made of fresh lime, and suffered to stand one day before applying.

## WINTER PEARS IN NEW JERSEY.

An experienced pomological friend, writing from Elizabethtown, N. J. under date of December 17, says:

"Fruit is scarce with us this season. Apples are worth \$5 per barrel, and very ordinary at that. Pears are now very scarce, and command fabulous prices—25 to 50 cts each! I have on hand in good condition the following varieties:—Easter Beurre, Glout Moreau, Doyenne d'Alençon, Beurre d'Arenberg and Jaminette. These are the principle kinds to be had at present for table use; also Winter Nelis, which is not yet quite ripe with me, although seldom keeping so late. Beurre d'Anjou, Beurre Diel, Columbia, Vicar of Winkfield, and Beurre Langelier are now nearly all gone. The latter is still in good condition, and will, I think prove one of our best early winter Pears: size large and fair; I think quite equal to Glout Moreau. Beurre Diel has been extra fine and Vicar of Winkfield has been what I never had it before: perfectly melting and of good quality. W. R.

[In the face of such facts as are above stated, is it necessary for us to urge upon those of our readers who have easy access to our Atlantic seaports the *certainly of profit* from Fruit Growing? The Atlantic slope of the Southern States, ought to be the Orchard of the world.—Eds.]

## THE FIG.

THIS is, emphatically, the poor man's fruit, thriving in almost any soil, producing fruit the first year from cuttings, and yet, not one family in fifty have a good meal of figs in the year. Every family in the South should have a few fig trees; they require less care than any other tree. Cattle will not browse upon them, and whites, blacks, adults, and children, pigs and chickens will fatten on them. They are a natural vermifuge for children, and not bad to take.

In the upper portions of the South, fig trees will require some little protection during the coldest weather. It is not generally the cold weather of winter that kills them, but the cold of spring. They should be planted in the coldest, most exposed situations, so as to retard the putting forth the bud in the spring. A thick dressing of stable manure around the roots of the tree in the winter, will prevent frost from injuring the tree. But little attention has been paid to improving this fruit, through new seedling varieties, when it is as susceptible of improvement, as any other fruit. Throughout the whole Southern portions of Carolina, Georgia, Alabama, Louisiana and Texas, dried figs may be exported as profitably as from Smyrna.—*Soil of the South.*

**FERTILIZERS FOR FLOWER PLANTS.**—It has been proved that, for the generality of flowers, and more especially geraniums and the more delicate lilies, common glue, diluted with a sufficient portion of water, forms a richer manure than any other yet discovered. Plants placed in sand on the worst soils, display much beauty and vigor when watered with this composition.

## CHINESE SUGAR CANE AT THE NORTH.

THE New York *Tribune* discourses upon the merits of the *Sorgho* and its ultimate effects upon the imports of the country in this wise, after speaking of the Beet as a sugar producing plant:

"But the prospect of a liberal and profitable yield of sugar from the *Sorghum*, or Chinese Cane, is still better. Here is no crude theory—no rash experiment. The *Sorghum* has been extensively grown for sugar from time immemorial in China and other parts of the East, where its product came necessarily in direct collision with that of the cane. The *Sorghum* will grow luxuriantly in all our States south of 45°; though it will prove most productive and profitable in the South. Two crops of it (for sugar) may be grown in all the Southwestern States, though but one probably would ripen its seed. The evidence embodied in the last two Agricultural Reports from the Patent Office, with that afforded by the personal experience and observation of thousands of our citizens last summer, abundantly prove this a sugar plant of value, and in connection with the use of the refuse (or bruised and pressed stalks) for fodder, will soon render the production of sugar (or at least Molasses) as common throughout the Union as that of corn now is.

"That *Sorghum* is a plant strongly charged with saccharine juice—that it will grow luxuriantly from Lake Erie to Florida—that its juice boils readily into a very palatable and sweet Molasses—that the cattle will eat and be nourished by the pomace or bruised and pressed stalks—and that this plant might be grown with profit for fodder alone—so much is already established. The ready crystallization or *graining* of sugar from this Molasses is a more difficult process, requiring skill, chemical knowledge, and perhaps expensive machinery. As yet, seed is scarce and dear, experience limited, machinery, even for crushing and pressing, hardly in existence, while the notorious inertia of the great mass of our farmers, and their

reluctance to try new plants, weigh heavily against any new industry such as this. We do trust, therefore, that Congress will not now abolish nor essentially modify the duty on sugar. The current assumption that this duty enhances the price of the staple fifty or sixty per cent is simply absurd; but let it pass. We desire that sugar be cheap and abundant—not for to-day merely, but permanently—and we believe the way to this end lies through the steady encouragement of sugar-growing at home.

"But we do not gauge the capacity of this country to produce sugar by its adaptability to the growth of the Sugar Cane. On the contrary, there are other plants of broader range within our limits from which sugar may be produced, and among these we give a high rank to the *Sorghum*. This habitant of the temperate zone is not an upstart—it has been producing sugar in China for centuries, and in Southern Africa for generations. And the experiments in growing it in France and this country have thus far proved highly satisfactory. It grows luxuriantly from the Gulf of Mexico to Lake Champlain, though the Middle and older Southern States appear better adapted to it than the extreme North, where the uniform ripening of its seed cannot be relied on. We are confident, however, that it will produce sugar in three-fourths of the area of the New England States. Its value as a fodder plant is fully established; it will produce more food for cattle per acre than even Indian corn, as it grows far taller, and horned cattle, horses, and even hogs eat it with avidity, not only when green, but also after it has ripened its seed. The American experiments in making sugar from it have as yet been on a small scale, and with imperfect machinery; but the juice is abundant; it is about as sweet as that of the cane; and the syrup therefrom is decidedly the more palatable. Hitherto seed has been scarce, so that but a patch has been grown by any one; but this year's seed will serve to plant thousands of acres, and it is all carefully saved.

"We trust Congress, therefore, will let the sugar duty alone for the present. Let us give the *Sorghum* a trial; and let any other saccharine plants be also tested. To give up that we cannot make sugar, is to narrow the field of production and enhance the price of the staple in Cuba, Brazil, &c. To enlarge this field seems to us the true way to abundant and cheap sugar."

## COTTON THRESHER AND CLEANER.

*Editors Southern Cultivator*—I have been kindly shown an article in your *Cultivator*, wherein I see that you have received a letter from a gentleman residing in Texas, making enquiries of you, if there is any such a thing as a Cotton Thresher and Cleaner, that cleans the dirt and trash out of the Cotton without injuring the staple. Also your invitation to correspondents or subscribers to inform you if there is any such a machine in their section of country.

I have written to inform you that I am the inventor and Patentee of just such a machine as I think your correspondent wants. It is a machine for cleaning the dirt and trash out of Cotton, preparatory to ginning. I do not pretend to say that it will remove stains; but it is everything in the form of a perfect Cotton Cleaner that any Planter could wish; as it not only cleans the Cotton perfectly, but leaves it so open, without injuring the staple, that the Saw or Roller Gin can gin one-third more, and the hands can pick as much again; for the most dirty and trashy Cotton can be cleaned by running it through the machine once. It is also an excellent Thresher for Peas. The machine when made full size, run by the gin gear, and properly fed, can clean 35 or 40 bales of Cotton per



day. Indeed, the Planters here, who use them, think it best to run the whole of their Cotton crop through them, as the Cotton leaves the machine so loose, dry and clean, that they consider it a great saving in the time of ginning and wear of their Gins; and if the Cotton is wet they run it through the machine to beat it loose and dry it before laying it in burl for ginning. A smaller one can also be made by preserving the same relative proportions, that can run at the same time with the Gin, so that all that is requisite to do, is to feed the Cotton Cleaner, and let it discharge the Cotton into the feed box of the Gin.

I enclose a view of the machine, in which figure 1 is a perspective view. Figure 2, a Transverse-Vertical section, and figure 3, a longitudinal elevation of the main shaft, with beating wings detached. Other letters designate other parts of the machine. B is casing; H is the concave bed, composed of rods or slats; J is supporting frame; C is hopper; a figure 3 is main shaft; D is a driving pulley; gg are beating wings; E are radial bars or arms supporting the bars; ff to which the beating wings are attached. [We are unable to give the engravings alluded to, at present.—Eos.]

Much of the Cotton, when it comes from the field, is in a matted, dirty condition, and if subjected to violent beating action at first, would be much injured. The slow motion of the beating wings at the smallest end of the cylinder acting in conjunction with the bars or ribs of the concave H opens the fibres of the Cotton without injuring the same, and as it is gradually passed along, the increasing speed of the wings beats the Cotton and agitates the air to such a degree, that the dirt, and a part of the seeds are separated from the Cotton, the fibres are thoroughly opened, and the Cotton is discharged from the machine in the most perfect condition for ginning.

I could procure a large number of testimonials in favor of its efficacy, but the following may be sufficient for the present, it being an opinion kindly sent to me by L. C. Robbins, Mechanical Engineer, Washington, D. C.

JOHN WIND, Esq.—*Dear Sir:* My opinion of your Cotton Cleaner and Thresher is as follows: in simplicity of construction and efficiency of action, it is certainly one of the very best machines for the cleaning of Cotton that has ever come under my observation, and if the above opinion can be of any service to you, you are at liberty to use it in any way you may see proper.

Wishing you much success, I remain respectfully yours,  
T. C. ROBBINS.

My invention has not been brought much into notice, except in this place, as my circumstances are such that I could not provide the means of furnishing myself with Agents to travel through the Cotton growing region of the United States, although a short time before, I was shown your article in *Southern Cultivator*, a gentleman offered to assist me, so that I shall now send out one or more Agents, with small working machines for operation and trial, and endeavor to sell rights to individuals or counties as soon as possible, and as your *Cultivator* is taken and read by Planters principally, who need such a machine, you would confer a lasting obligation on me, by giving the invention a notice in it, and oblige,

Your most obt. serv't., JOHN WIND.

P. S.—I could refer any persons making enquiries concerning the machine: To Maj. Reamur Young, R. Young, Jr., Estate of Col. M. Young, Dr. P. B. Winn, General Thos. Blackshear, Thos. Jones, Esq., M. B. Jones, Esq., Jas. Young, A. T. McIntyre, Thos. Wyche, L. Wyche, H. Wyche, Wm. Lowder, L. Bowen, H. Bowen, T. Botteros, Hon. Col. Jas. Seward and a number of others who would cheerfully give their testimony in favor of the efficacy of the machine—all being in this county.

J. W.

Thomasville, Ga., 1857.

## CHINESE PROLIFIC PEAS.—LETTER FROM EX-GOV. DREW, of Arkansas.

The following very convincing letter was recently addressed by Ex-Gov. DREW, of Arkansas, to ROBERT H. DOUGLASS, Esq., father of the gentleman who first introduced this very wonderful Field Pea to public notice through our columns:

PORT SMITH, ARK., Dec. 20, 1855.

*Dear Sir:*—I thank you for the package containing the specimen of China Peas. From the hardy appearance of the few I picked up on the ground, in this month, at your plantation, I had supposed it capable of resisting the winters of a higher latitude, and will give it a trial in this vicinity. If they succeed as well here as in your alluvial soils, they must prove invaluable.

The evidences afforded me while at your house, by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is beyond anything in the way of a great yield I have ever known.

I think I am within bounds when I say the yield in pea and vicia must be at least four or five times greater than any other pea—clover or grass for hay. And the waste peas were equal to any other fall pea crop; and, from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr. WM. F. DOUGLASS, has done well in making arrangements for the extended culture of this invaluable pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands, than guano or any other application to the soil, while, at the same time, the yield is likely to be as great on such lands as on the rich bottoms of the Arkansas. Should it prove so, this pea will become as familiar to every Southern Planter as those now esteemed as the most productive.

Respectfully, your obt. serv't.,  
THOS. S. DREW.

THE STEAM PLOW.—A correspondent of the London *Times* says:

"On Friday last I had the pleasure of witnessing Mr. Fowler's new steam plow at work on the farm of Mr. Charter, near Slough; and I wish the public to know that machinery has at last been set in motion which really can plow with economy as well as efficiency. Mr. Fowler is able to plow very light land, I was informed, for 3s, and heavy land for 6s per acre;\* and he is now trenching for his Royal Highness, Prince Albert, on Shore Farm, 10 inches deep, at 10s per acre."

\* From 75c. to \$1.50.

† About \$3 02.

DEFENDING THE SOUTH.—The New Orleans Bulletin suggests the following capital method of defending the South:

"The best way of defending the South," the Bulletin says, "is to make a vigorous and extended assault upon old fields and dilapidated fences. The enemy is sure to enter at every gap, and lie concealed in every briar patch and acre of weeds he may discover. To rout him, horse foot and dragons, it is necessary to set the plow and the spade going, and then to overwhelm him with mountains of manure. Nothing like manure for the rights of the South, and the expulsion of its enemies. They can't stand it at all. The 'Virginia and Kentucky Resolutions,' are nothing in comparison with it. They may be attacked in front and rear, and terribly shattered; but attack from the swamps and deep plowing, with a plenty of it, will prove invulnerable. Cotton bales are but gossamer in potency, placed besides heaps of muck."

## CHINESE SUGAR CANE.

A correspondent of the *Prairie Farmer* sends the editors of that paper some molasses made from the Chinese Sugar Cane, which is pronounced equal to the best maple molasses. The mode of manufacture was rude, but shows how easy the molasses was obtained. He says:

"I cut five stalks, stripped off the leaves, and with a hammer pounded it into pumice. I placed this in my cheese press, applied a little water, and gathered about a pint of the water and juice. This process was very imperfect—extracting but a small part of the juice. This my wife evaporated by putting it in a basin on the top of the stove. From it I got five tablespoonfuls, from the five stalks, of the very best molasses—equal to that made from the sugar maple. Proud of my success, soon after, which was about the middle of August, I cut up and quartered and split with my knife about a bushel of the stalks—put them into the boiler of the kitchen stove, added about one pail full of rain water, and steamed the stalks about an hour—then removed them. Judging from the taste by chewing some of them, half or more of the juice yet remained in the stalk. This juice and water we strained through a linen cloth, and boiled it away. No other cleansing or purifying process was tried. From it we made a quart of molasses—a sample of which I send you."

**MASSACHUSETTS MOLASSES.**—We are indebted to J. F. C. Hyde, Esq., of Newton Centre, for a specimen of molasses which he has manufactured from the Chinese Sugar Cane, grown upon his farm in that town. Mr. Hyde is confident that the cane can be successfully cultivated, and with as much ease as Indian corn, and producing an article of molasses as good as that now selling in the market at sixty cents a gallon, and doubtless sugar of an equally good quality. We understand that this subject is now exciting general attention in this community, and that the experiment of its successful culture will be thoroughly tested.—*Boston Journal.*

**SELF-CULTURE.**—It is our business carefully to cultivate our minds, to rear to the utmost vigor and maturity every sort of generous and honest feeling that belongs to our nature. To bring the dispositions that are lovely in private life, into the service and conduct of the commonwealth; so to be patriots as not to forget we are gentlemen. To cultivate friendships, and not to forget our duties. To model our principles to our duties and situation. To be fully persuaded that all virtue which is impracticable is spurious: and rather to run the risk of falling into faults, in a course which leads us to act with effect and energy, than to loiter out our days without blame and without use. He trespasses against his duty who sleeps upon his watch, as well as he that gives over to the enemy.—*3d Eccl.*

**DESCRIPTION OF A PARTY OF PLEASURE.**—"We went out clean—we came home dirty; we went out sober—we came home drunk; we went out well—we came home sick; we went out laughing—we came home crying; we went out with cash—we came home moneyless; we went out for air—we came home full of dust."

**SUGAR CANE IN NEBRASKA.**—The *Bellevue Gazette*, published at Bellevue, Nebraska Territory, has the following:

"We acknowledge the receipt of a small quantity of molasses, which was manufactured from cane grown in our Territory. Mr. Charles McRay informed us that the cane is known as the 'Chinese Sugar Cane,' and that from the early maturity of this species there is every reason to think that its culture can be made profitable."

## CHINESE SUGAR CANE—SECOND CROP.

A friend, writing from the vicinity of Montgomery, Ala., under date of Dec. 5, says of the *second crop* of canes from his spring planting:

"On the 21st. of November, I cut cane from the field, crushed out 100 gallons of juice; boiled it down to 25 gallons of good syrup. This is doing well, I think."

A. J."

**RATHER FRUTTY.**—A celebrated comedian arranged with his greengrocer, one Berry, to pay him quarterly; but the greengrocer sent in his account long before the quarter was due. The comedian, in great wrath, called upon the greengrocer, and, laboring under the impression that his credit was doubted, said: "I say, here's a pretty *mal*, Berry; you have sent in your *bill*, Berry, before it is *due*, Berry. Your father, the *elder* Berry, would not have been such a *goose*, Berry; but you need not look *black*, Berry, for I don't care a *straw*, Berry, and I shan't pay you till *Christmas*, Berry."

## FOOT EVIL, OR "RUN ROUND" ON A HORSE'S FOOT.—

*Editors Southern Cultivator*—Take soft soap and stir in fine salt, spread it on a rag 3 inches wide, and twelve inches long, and smear it on the hoof, so that the diseased part be covered, and over this sew a slip of osenaburg 4 inches wide, so as to be securely arranged. Put on fresh soap and salt and clean rags every 24 hours. It is a never-failing remedy. I have stopped the disease so quick, that it only extended an inch long. It will also cure the Scratches. MECKLENBURG.

Mississippi, 1857.

**CHINESE SUGAR CANE.**—It is stated that a plan has been invented in France, that proves successful in making syrup by cold maceration. The cultivation of the plant is progressing in France, and meets with great favor. One variety has yielded 80 to 100 bushels of seed per acre, and one half of the weight of the stalks in syrup. The results in France show that the ripening of the seed of Sorghum does not detract from the value of the juice.

"A man's true wealth," (said Mahomet, and it is a maxim that Christians may endorse, if it is in the Koran,) "a man's true wealth, hereafter, is the good he does in this world to his fellow-men." When he dies, people may say, "what property has he left behind him?" but angels will say, "what good deeds has he sent before him?"

**GIORGIO ORANGES.**—We were notified that the best oranges were cultivated as far north as the Georgia line. Burns & Cobb, 348 Washington street, New York, who were brought from Darien, Ga., by Mr. S. W. Hughes, and which are of a quality we have never seen equalled, besides being very large and handsome in appearance. They sell readily at 50 per dozen.—*2d Eccl.*

**GIORGIO SUGAR.**—We have received from the *Georgia Gazette*, from Judge De Lyon, a sample of Georgia Sugar made by him at Herricks, a few miles from this city. The Judge informs us that he is going largely into the business of sugar making the ensuing year. He will cultivate the Chinese Sugar Cane.

♪ ♪ A Spanish proverb, when he eats a good apple, peach, pear or any other fruit in a forest or by the road side, plants the seed; and hence it is that the woods and road sides of Spain have more fruit in and along them than those of any other country. Cannot we, in this country, do the same?

**SEA ISLAND COTTON.**—It is not generally known, says the *Goliad (Texas) Express*, that Sea Island Cotton can be raised to advantage in this portion of Western Texas. The fact that it can be cultivated to a very great advantage here, is now beyond all doubt. The last two years' experience has given the most satisfactory proof of the fact. We know some two or three gentlemen planting on the San Antonio river in this county, who have raised this season more than 1000 lbs. of this staple per acre.

**SHEEP IN OHIO.**—The *Ohio Farmer* estimates the profit on sheep in that State the last year at \$6,000,000, and the whole capital invested \$60,000,000. The number of sheep is probably five millions, and the wool clip last year reached 10,193,000 pounds—one-fifth of the entire wool clip of the Union.

☞ A sweet country home, with roses and honey-suckles trained to climb over it; with good taste, intelligence, and beauty within; toil enough to insure health, and leisure enough to court acquaintance with books, the flowers, and the loveliness of nature; with peace, plenty, and love; is surely one of the Paradises which heaven has left for the attainment of man.

☞ A taste for trees, plants and flowers, is a peculiar attribute of woman, exhibiting the gentleness and purity of her sex; and every husband should encourage it, for his wife and daughters will prove wiser and happier and better for its cultivation.

☞ Florida Long Cotton was selling at Charleston, at the latest advices, at from 20 to 30 cents, and in Savannah from 20 to 37 cents. The principal sales being effected at 25 cents. The sales of Sea Islands range from 40 to 60 cents.—*Alligator Advertiser, Jan. 1.*

☞ In England, out of 50,000,000 acres cultivated, 10,000,000 are sown to wheat or other cereal crops, while in France 50,000,000 are cultivated for that purpose. The average growth of wheat per acre in England is thirty-two bushels, and in France only twelve bushels, while the produce of English land is about \$16 per acre, and that of France \$8 per acre.

## Domestic Economy and Recipes.

**A NEW MODE OF SAVING BACON.**—About a couple of years ago we were entertained at the house of a friend with a dinner of eggs and bacon. We complimented our host on the superior quality of his bacon, and we were curious to inquire the way to like success in the preparation of this dainty article of diet, though one that is better fitted for the palate of an epicure than for the stomach of a dyspeptic. To our surprise we were informed that that portion of our meal was cooked eight months before. Upon asking for an explanation, he stated that it was his practice to slice and fry his bacon immediately on its being cured, and then pack it in its own fat. When occasion came for using it, the slices slightly refried have all the freshness and flavor of new bacon just prepared. By this precaution our friend always succeeded in "saving his bacon," fresh and sweet through the hottest of the weather.—*N. E. Farmer.*

☞ Apples and pears, cut into quarters and stripped of the rind, baked with a little water and sugar, and eaten with boiled rice, are capital food for children.

**ANTIDOTE FOR POISON.**—*Cut this Out.*—A correspondent of the *London Literary Gazette*, alluding to the numerous cases of deaths from accidental poisoning, adds:

"I venture to affirm there is scarce even a cottage in this country that does not contain an invaluable, certain, immediate remedy for such events, nothing more than a dessert spoonful of made mustard, mixed in a tumbler of warm water and drank immediately. It acts as an emetic is always ready, and may be used with safety in any case where one is required."

**TO PRESERVE HAMS.**—*Editors Southern Cultivator*—I submit the following plan, which I have tested two seasons with the most satisfactory results. As soon as the Hams become thoroughly dry, they should be taken down and packed in clean cotton seed, a layer of Hams and seed alternate. When the season for the fly shall have passed, pack the Hams to themselves.

With esteem and respect,

JOHN B. PHILLIPS.

*Belle Passi, Jan., 1857.*

**HOW TO MAKE TEA PROPERLY.**—The proper way, to make a cup of good tea is a matter of some importance. The plan which I have practiced for these twelve months is this: the teapot is at once filled up with boiling water, then tea is put into the pot, and is allowed to stand five minutes before it is used; the leaves gradually absorb the water, and as gradually sink to the bottom; the result is that the tea leaves are not scalded, as they are when boiling water is poured on them, and you get all the true flavor of the tea. In truth much less tea is required in this way than under the old and common practice.

**TO PRESERVE CITRON.**—Take 3 lbs. of sugar to 14 lbs. citron, cut in as large pieces as convenient. Put the sugar in a preserving kettle with a little water; boil and skim, add cloves, cinnamon, mace and coriander seed. Put in as much of the citron as the syrup will cover, and cook till you can run a straw through, then place upon plates to dry. Molasses can be used instead of sugar. A little citron thus prepared, if used in mince or dried apple pies, will add much to their flavor.—*Rural New Yorker.*

**QUINCES FOR THE TABLE.**—We know from personal observation, that few persons are acquainted with the best method of preparing quinces for the table; it is simply this: Bake them, remove the skin, slice and eat them with cream and sugar. Prepared in this manner, many prefer them to the peach. If you have never eaten them prepared in this way, try it, by all means, and you will thank us for the suggestion.—*Farmer's Mirror.*

**SEALING WAX FOR CANS.**—A very good sealing wax is made by melting and stirring well together one ounce of Venice turpentine, four ounces of common rosin, and six ounces of gum shellac. A beautiful red color may be given by adding one-quarter of an ounce or less of vermilion.

**TO KEEP FLIES OFF GILDING.**—The meat market at Ghent is now completely free of the intolerable nuisance of flies. The simple remedy consists in the inner walls having been painted with laurel oil (*Oleum lauri nobilis?*) the smell of which the flies cannot support. Even gilt frames can thus be preserved unsoiled. The smell of the laurel oil is not unpleasant, and one easily gets accustomed to it.—*The Builder.*

## Advertisements.

## EVERBLOOMING ROSES.

**EMBRACING** all the leading sorts of China, Tea, Bourbon, Noisette, Hybrid Perpetuals, &c. Also, a great variety of Spring Roses, Moss Roses, Banksian Roses, Climbers, &c., &c. All select, strong plants, grown on their own roots. Price 50 cents, or \$5 per dozen. Catalogues sent *free of postage*. Address: Dec56—tf D. REDMOND, Augusta, Ga.

## A FARM WANTED.

**I WISH** to purchase a FARM in Southern Georgia of from 1000 to 5000 acres of land, near the Florida line and lying in the Southern part of Charlton county preferred. Persons having land in that neighborhood to dispose of will please address me at No. 162 I street, Washington, D. C., giving a description of the land and the very least money and best terms that will buy it.

MILTON GARRETT.

REFERENCE—Dr. D. Lee, Athens, Ga. Nov56—tf

## GRAPES, STRAWBERRIES, MULBERRIES, &amp;c., &amp;c.

**ALL** the finer varieties of *native and foreign* GRAPES—some of the former, for Vineyards, on reasonable terms by the quantity. Also, the finest collection of Strawberries in the South: Rochelle or Lawton BLACKBERRIES; varieties of the RASPBERRY, MULBERRY, &c., &c. See Descriptive Catalogue, sent *free of postage* to all applicants. Address: D. REDMOND, Dec56—tf Augusta, Ga.

## GRADE CASHMERE GOATS.

**FOR SALE**, a few half blood BUCKS at \$30 each. Address (Nov55—tf) R. PETERS, Atlanta, Ga.

## PLUMS!—FRUITLAND NURSERY!

**ALL** the most approved varieties of the PLUM on native seedling stocks, furnished to order. Also, full Catalogues of "Fruitland Nursery" mailed to applicants, *free of postage*. Dec56—tf Address: D. REDMOND, Augusta, Ga.

## CHINESE PROLIFIC PEA!

## THE GREAT FORAGE PLANT AND RENOVATOR OF SOUTHERN LANDS!!

**THIS** very remarkable new Field Pea is by far the most valuable and productive variety ever introduced. It is well adapted to poor land, yielding at least three or four times as much as any of the common varieties, and producing a growth of vine almost incredible. It grows in clusters of from 12 to 20 pods, each pod containing 10 to 12 peas, and is of course far more *easily gathered* than any other. The vine never becomes hard, but is *soft and nutritious* from the blossom to the root. It is greedily eaten by stock, and the Peas are unsurpassed for the table in delicacy and richness of flavor.

We subjoin the following extracts—the first from Ex-Governor Drew, of Arkansas, and the remainder from several well known citizens of South Bend, in the same State:

*Dear Sir:*—The evidences afforded me while at your house by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is *beyond anything in the way of a great yield I have ever known*.

I think I am within bounds when I say the yield, in pea and vine, is at least five times greater than any other pea—clover, or grass for hay. And the waste peas were equal to any other full pea crop; and from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr. Wm. F. Douglass, has done well in making arrangements for the extended culture of this invaluable Pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands than guano or any other application to the soil, while, at the same time, the yield is likely to be as great on such lands as on the rich bottoms of Arkansas.

Respectfully your obt. serv't.,

THOS. S. DREW.

To ROBERT H. DOUGLASS, Esq.

Dr. Goree, of Arkansas, estimated the yield in Peas or Hay at "*five times that of any other Field Pea he had ever seen planted*." W. R. Lee, Esq., says he "*has never seen anything to equal it*," and that it should "*supersede the use of every other*," and the following certificate settles the question of its value for Hay:

"We, the undersigned, saw 'that pea-vine,' and think, after the peas were gathered, that the vine would have made as much hay as a stout man could carry; it covered a space of ten or twelve feet in diameter, and lay from one foot to eighteen inches deep."

WM. C. MEEKS,  
B. W. LEE.

South Bend, Ark., Sept., 1856.

Col. J. B. L. Marshall, Assistant Engineer on the Little Rock and Napoleon Rail Road, says:

"If the Southern Farmers will give it a fair trial, they will find it to be the *greatest Pea both for table use and for feeding stock*, now known. They fatten hogs faster than anything I have ever tried. On the 1½ acres Mr. Douglass had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of ground of the same size," &c., &c.

For further particulars, see Circulars furnished gratis by the Agents.

We are prepared to send out a *limited quantity* of these Peas, put up in cloth packages to go by mail. They will be forwarded, *free of postage*, to any address on receipt of \$1.30, or otherwise at \$1 each. Current funds and postage stamps will be a satisfactory receipt.

Our names will be printed on all packages of the *genuine seed*.

Any one not perfectly satisfied with the Pea will have his money returned. Address (with plain directions for mailing)

PLUMB &amp; LEITNER, Augusta, Georgia.

\*Dealers in Seeds and country merchants can be supplied, to a limited extent, at the usual discount, if their orders are forwarded

immediately.

Feb57—tf

## FRUITS FOR THE SOUTH!

## "FRUITLAND NURSERY," AUGUSTA, GEORGIA.

**THE** Subscriber takes pleasure in offering for fall and winter planting, choice TREES of the following varieties of *all the* kinds which have been found to be well adapted to the South:

**APPLES**—a succession, ripening from May until December, and keeping until June, mostly of Southern origin, but recently introduced to the public—price, 25 cents each.

**APRICOTS**—such fine varieties as Moorpark, Broda, Hemsikirke, Peach, &c., &c.

**PEACHES**—the choicest collection ever offered, including in addition to *all the best* Northern and Foreign sorts, a splendid variety of new Southern Peaches not found in any other Catalogue. The present year's stock of Peach trees is quite limited in quantity, so that early orders are advisable. Price, 25 cents.

**NECTARINES**—Boston, Stanwick (new), Hunt's Tawny, New White, and all other first class sorts.

**PEARS**—DWARFS and STANDARDS—a selection of the *very best*, recommended by the American Pomological Society, and most of which have been fully tested in the South.

**PLUMS**—all the largest and best varieties.

**CHERRIES**—Twenty or more select kinds, worked on the Mahaleb Stock, as low Standards or Dwarfs—the proper form for the South.

**GRAPES**—fine rooted plants of the Catawba, Isabella, Seppernong, Warrenton and other native varieties, for the table and for wine-making. Price, 25 to 50 cents.

**FIGS**—strong rooted trees of 6 or 8 of the best kinds, furnishing a successional crop throughout the entire season. Price 25 to 50 cents.

**STRAWBERRIES**—a selection from 25 or 40 varieties including Hovey's Seedling, Longworth's Prolific, McAvoy's Superior, and all the new and desirable sorts. Price, \$2 to \$3 per hundred.

**POMEGRANATES**—strong rooted trees of the sweet and sub-acid varieties. Price, 25 to 50 cents.

**BLACKBERRIES**—the famous Rochelle or "Lawton"—also, the Albino or "White Blackberry." Price, 50 cents each—\$5 per dozen.

**RASPBERRIES**—The American Black, Red Antwerp, &c. Price \$1.50 to \$3 per dozen.

**HEDGE PLANTS**—such as Osage Orange, \$8 to \$10 per thousand; White Macartney Rose, cuttings, \$10 per thousand; Cherokee Rose, cuttings, \$5 per thousand; Fortune's Yellow Rose, cuttings, &c., &c.

—ALSO—

A very choice selection of ROSES, new and rare EVERGREENS, FLOWERING SHRUBS, &c., &c.

Labeling, packing, marking and shipping, carefully attended to.

\*A new descriptive Catalogue now ready, and will be sent to all who desire it, *free of postage*. Address:

Nov56—2c

D. REDMOND, Augusta, Ga.

## AUGUSTA SEED STORE.

(Nearly opposite the United States and Globe Hotels.)

THE Subscriber has received and will continue to receive throughout the season, his stock of genuine and fresh GARDEN SEEDS—crop of 1865. The usual deductions made to country Merchants.  
J. H. SERVICE.  
GIANT ASPARAGUS ROOTS, White and Red ONION SETS, White and Red CLOVER, LUCERNE, BLUE GRASS, &c., &c.  
Jan57—3t

## CHERRIES!—AMERICAN VARIETIES.

WE can furnish a limited number of nearly all the new American varieties of CHERRIES, worked on the Mahaleb stock and especially suited to the South. Also, all the old approved kinds. Price, 50 cents each or \$40 per hundred. Address:  
Dec56—tf D. REDMOND, Augusta, Ga.

## SHEEP FOR SALE.

ONE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS, of the Webb stock.  
June56—tf

RICHARD PETERS, Atlanta, Ga.

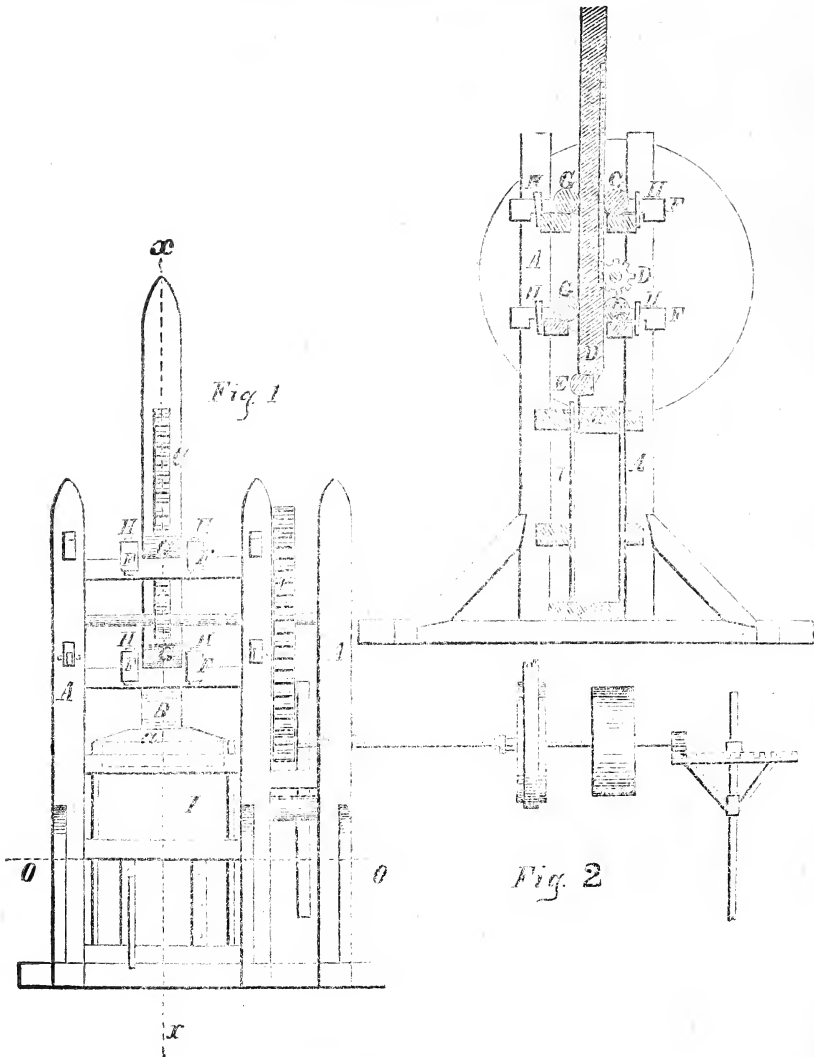
## A. LONGETT,

DEALER in FERTILIZERS, No. 34 Cliff street, New York.  
PERUVIAN GUANO No. 1—Government brand and weight on each bag. COLUMBIAN GUANO, imported by the Philadelphia Guano Company. SUPERPHOSPHATE OF LIME and BONE DUST.  
Jan57—3t

IMPROVED SUPERPHOSPHATE OF LIME, of the best brands, for sale by  
Jan57—3t A. LONGETT,  
34 Cliff street, New York.

COLUMBIAN GUANO, imported by the Philadelphia Guano Company.  
Jan57—3t A. LONGETT, Agent,  
New York.

## GLOVER'S PATENT COTTON PRESS.

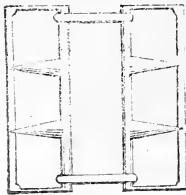


Patented July 3rd, 1855.

THE above Press is designed for plantation use, and is the only one known that can be effectively worked inside the Gin House or Shed added thereto. As will be seen, it is a vertical Press and combines simplicity, durability and quickness of action. Being inside of the Gin-House, all handling of the Cotton is saved; the top of the box is a hole in the floor and the cotton is raked from the lint room and taken out down stairs a bale. Being above ground and under shelter it is not liable to decay. Its durability considered, the Press is much cheaper than the screw. One of these Presses has been in operation on my own Plantation for 3 years, giving general satisfaction. I also have one erected at the Foundry of Messrs. Ewan & Bro., Columbus and Nassau streets, Charleston, S. C., who will give any particular information wanted, and furnish single Presses promptly, whom please address. These Presses can be worked either by hand, horse and the power that drives the Gin.

Patent Rights to States and Counties for sale. For purchase of Patent Rights address A. M. Glover, care of Moore & Glover, Charleston, S. C. For purchase of Single Presses address Messrs. Ewan & Bro., as above.  
Jan57—2t

## PATENT BUCKLE.



I DESIRE to sell the Right of making and selling the new DOUBLE-JOINTED PATENT BUCKLE, and will thankfully receive offers for it until the last day of June next. The Buckle is the best that has yet been invented, one answering for the whole wardrobe and should be made of gold or silver. The Right of one State is worth a fortune. I will sell the Right of one or all the States together.

WM. SUADE,  
Gum Creek, Dooley Co., Ga., Nov. 24, 1856. Jan57-5t

## WHITE'S GARDENING FOR THE SOUTH.

A NEW Work by W. N. White, of Athens, Ga., containing directions for cultivating the Kitchen and Fruit Garden, with large and valuable lists of fruits and vegetables adapted to the Southern States, with Gardening Calendars for the same. Price \$1.25, sent by mail, post paid, on receipt of Price.

C. M. SEXTON & CO.,  
Agricultural Book Publishers, 149 Fulton-st., New York.  
Jan57-2s

## DIOSCOREA BATATAS—NEW CHINESE Potato.—or Yam.

THE experience of another season in the cultivation of this new esculent, warrants us in confirming all we said in relation to it last year. Wherever it has fallen into the hands of judicious cultivators, and received the care necessary to its full development, the result has been entirely satisfactory in all respects; and it may confidently be reaffirmed that of all the esculents proposed as substitutes for the diseased potato, the Dioscorea Batatas is certainly the only important one. We can now supply small roots from 4 to 9 inches long, carefully packed for transport at \$1 per dozen; and small seed tubers (such as we sold last year) at \$1 per dozen to \$7 per hundred; these latter can be sent by mail. Description and directions for culture furnished with each package. Where practicable, parties are invited to examine the roots before purchasing, as we have them constantly on view.

NEW CHINESE NORTHERN SUGAR CANE.—Seed of this celebrated and invaluable plant in packets at 12 cents each (prepaid by mail 25 cts.) 75 cents a pound.

CHUFAS or EARTH ALMOND—\$1 per 100.  
JAPAN PEAS, 50 cts. a quart. NEW ORANGE WATER MELON (true), CHRISTIANA MUSK MELON; KING PHILIP CORN; SWEET GERMAN TURNIP, etc., etc., with the largest and most comprehensive assortment of VEGETABLE, FLOWER and FIELD SEEDS to be found in the United States.

Catalogues on application.

JAS. M. THORBURN & CO.,  
Seedsmen, &c., 15 John st., New York.  
Jan57-2t

## THE MOST EXTRAORDINARY COTTON IN the World.

I HAVE for sale the earliest COTTON in the world, and will sell the seed at \$1 each or six seed for \$5, or the seed of the stalk now on hand say three thousand, for \$2,000. J. L. GOREE,  
South Bend, Ark., 1856.

## CERTIFICATES.

I certify that I am doing business for Dr. Goree and have seen his communication of the 28th of November, and cheerfully certify that it is correct and not the least exaggerated. The cotton is either a new one or one I have never seen before, as I am very well acquainted with most of the new cottons of the present day. I believe this seed will open as early in latitude 34 as any seed I know will in latitude 32. ALEX. DAVIDSON.

I certify that I have seen Dr. Goree's stalk of Cotton, and that it is all he describes it to be. It differs from the fine cotton of the present day by branching much more and every branch filled with bolls. I consider it an entire new cotton, and far more valuable than the best I have ever seen, and fully a month earlier than our earliest cotton and well suited, I should think, to the latitude of Tennessee and perhaps of Kentucky. It would not surprise me if this cotton does not more effectually than any thing else settle the stomachs of the Abolitionists. It certainly is a very extraordinary stalk, maturing so early so many bolls.

WILLIAM WALDRON.

At the request of our neighbor, Dr. Goree, we have examined the stalk of cotton described by him in a communication to the Southern Cultivator, and do cheerfully testify to the correctness of the general facts of his description, and believe them all to be correct. ROBT. H. DOUGLASS.

[Mr. Douglass did not see the cotton for two months, and it having been so long in the house, the children had pulled many bolls off and on the twenty boll limb it only had nineteen. And that is why he worried it as he did. The others saw it the next day after pulling.] J. L. GOREE.]

[Jan57-2t]

## PEABODY'S NEW SEEDLING STRAWBERRY.

THE SUBSCRIBER has originated a new Seedling STRAWBERRY, which combines more good qualities to make up a perfect berry than any ever yet introduced, viz: It is of the largest size, measuring six and seven inches in circumference; it is of beautiful form, attached to the cavity by a polished coral-like neck without seeds; rich deep crimson color; fruit borne on tall foot-stalks, of the most exquisite pine flavor; flesh firm, melting and juicy; and bears transportation better than any Strawberry ever cultivated (See engraving and description of the plant in the November No., last volume.)

I will be prepared to send the plant out, whenever the following terms are complied with. Not a plant of this variety has ever left my grounds, none or will, until the propositions below are subscribed to. I propose to get one thousand subscriptions at \$5 per dozen plants throughout the whole country. Subscribers on forwarding their names and post office address, with the number of dozen desired, will receive by return mail a beautiful colored plate of the vine and fruit drawn from nature; and as soon as the thousand subscriptions are made up, I will notify each subscriber, when the money may be mailed to me, and I will put the plants up in moss, enveloped in tissue of silk, and forward them by mail. By this method they can be sent to any part of the Union with safety and despatch. I have sent packages of 10 of the common Strawberry 100 miles by mail, without the loss of a plant. Packages of one dozen will go through the mail as certain as a letter.

Subscribers, on receiving the colored plates will please show their friends, that it may hasten the completion of the list. From one dozen plants, one thousand may be produced the first year. This plant is the hermaphrodite, always bearing perfect crops of fruit, without a single supplanter.

Directions for the culture of this plant will be sent with each colored plate. CHARLES A. PEABODY.

Columbus, Ga., Oct. 1, 1856.

As a proof of the keeping qualities of this new Strawberry, on the morning of the 9th of May last [Friday] I picked a case of the berries, took them to Columbus six miles, in my buggy, sent them from Columbus to Savannah, three hundred miles by railroad and from Savannah to New York, nine hundred miles by steamer to my friends, Messrs. J. M. Thorburn & Co. The following extract from Messrs. Thorburn & Co.'s letter, will show the condition of the berries just one week after they were picked.

C. A. P.  
New York, May 16th, 1856.

MR. CHARLES A. PEABODY—Dear Sir:—The Strawberries came to hand on the afternoon of Tuesday, sound and in very good condition, retaining an unusually strong Strawberry aroma. The berries have withstood only a very little, up to this time, Friday morning, May 16th. Yours truly,

Jan57-4t J. M. THORBURN & CO

WYANDOT CORN.—Persons wishing to procure Seed of this new and most productive variety of Corn can be supplied by early application to D. B. PLUMB & CO.  
Jan57-1t

"FRUITLAND NURSERY," AUGUSTA, GA  
Fruits and Flowers for the South!

THE Subscriber has just issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing D. REDMOND, Augusta, Ga.  
Dec56-4t

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a buck and three Ewes for \$100, if applied for prior to the 1st of January next. RICHARD PETERS,  
Dec56-4t Atlanta, Ga.

## PURE AND VALUABLE SEEDS.

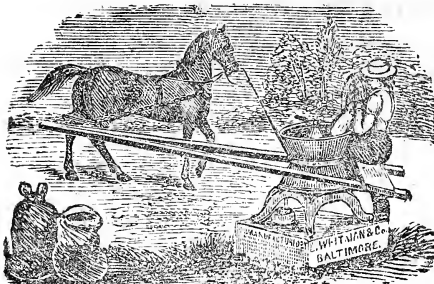
HAVING experienced the great difficulty in obtaining reliable FLOWER SEEDS, suitable to the South, I have raised a small quantity, which I have placed in the hands of D. B. Plumb & Co., Druggists, in this city, for retaining I would particularly draw the attention of the ladies to the splendid collection of Stock Gilly flowers, Ten Weeks Stocks, Double Wall Flowers, and German Asters.  
Dec56-4t ROBERT NELSON, Augusta, Ga.

## BLACK ESSEX HOGS.

FOR SALE, a few pairs of three to four months old, at \$20 per pair. For 10 Hogs, 100 dollars. This breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and diseases of the skin, to which hogs are so liable when confined in dry pens in a Southern climate. Address  
Nov55-4t R. PETERS, Atlanta, Ga.



## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAYNOR'S "CHAMPION."

The Manufacturers of the "Young America" claim for this Mill:  
1st. That it will crush Corn and Cob; also, grind fine Meal.

2nd. That the entire grinding surface can easily be replaced at a small cost.

3rd. That it has an extra set of fine and coarse plates.

4th. That it deposits meal in a box or bag.

5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.

6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding parts lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf

H. & J. MOORE & CO.

## CHINESE SUGAR CANE, OR SORGHO

Sucre!!!—Pure Seed!!!

THE subscribers take great pleasure in informing the Planters, Farmers and Gardeners of the South, that they have secured from the most reliable sources a limited supply of FRESH SEED, of this very valuable plant, the properties of which may be briefly summed up as follows:

1st. One acre of the stalks, properly cultivated, will yield from 400 to 500 gallons of fine syrup, equal to the best New Orleans; and from the same roots, a second crop of excellent fodder.

2d. Sown broadcast or in close drills, on land deeply plowed and highly manured, it will yield from thirty to fifty thousand pounds of superior fodder to the acre.

3d. It surpasses all other plants for soiling (feeding green) and fodder, on account of the great abundance of sugary juice which it contains; and is greedily eaten by stock of all kinds.

4th. It bears repeated cuttings, like Egyptian Millet, growing off freely and rapidly, after each cutting.

5th. It stands drouth much better than common corn, retaining its green color and juiciness even after the seed matures.

6th. The seed is excellent for human food, when ground into meal, and fattens domestic animals very speedily. From twenty-five to seventy-five bushels can be raised on an acre.

7th. It is so certain and prolific a crop that planters may be sure of succeeding with it as a Sugar plant anywhere South of Maryland and North of Mexico. If planted early in the Southern States the seed will mature and produce another crop the same season.

The seed, which has been very carefully kept pure, from the original importation, will be offered in cloth packages, each containing enough to plant half an acre, in drills, with full direction for the cultivation, which is perfectly simple.

These packages will be forwarded per mail, FREE OF POSTAGE, to any address, on receipt of \$1.30 for each package. When not sent by mail, we will furnish the packages at \$1 each.

Early orders are solicited, as the supply of good and reliable seed is quite limited. Applicants' names will be entered in the order in which they are received, and the seed will be ready for mailing or delivery on the first of October.

Address, with plain directions for mailing or shipping,

D. B. PLUMB & CO., Augusta, Ga.

Pamphlets, containing full history and description of this plant, with valuable Reports on its merits, will be sent, postage free, to all who purchase seed, or who will enclose a three cent stamp.

Dealers in seeds and country merchants can be supplied at a liberal discount from retail rates, if their orders are received immediately.

Oct56—tf

R. B. NORVELL,

AUCTION AND COMMISSION MERCHANT, AND DEALER IN MACHINERY AND AGRICULTURAL IMPLEMENTS, Huntsville, Ala.

Dec56—2t\*

## PLANTATION AND GARDEN

## Fertilizers.

THE Subscriber has constantly on hand the following concentrated MANURES, a single trial of which will prove to the most incredulous their value as a restorer of fertility to worn out soils and their adaptation to increasing largely the products of the Garden and the Orchard.

Numerous testimonials from gentlemen who tried them last season have been received, all of whom concur in saying that their experiments were satisfactory and profitable beyond their anticipations:

PHOSPHATED GUANO.—In barrels of about 250 lbs., at 2 cents per lb.

SUPER PHOSPHATE OF LIME.—In barrels of about 250 lbs., at 2 cents per lb.

COARSE GROUND BONES.—In barrels about 175 lbs., at 1½ cents per lb.

FINE GROUND BONES.—In barrels of about 200 lbs., at 1½ cents per lb.

PERUVIAN GUANO.—In sacks of about 140 lbs., at 2½ cents per lb.

POUDRETTE, or de-oderized Night Soil, in powder \$1.75 per barrel.

LAND PLASTER.—At \$1.75 per barrel.

Also, ROCK SALT, in barrels of about 300 lbs. at 1 cent per lb.

Orders by mail or otherwise promptly attended to. A pamphlet, containing further particulars and directions for using the above fertilizers will be sent by mail, on the receipt of postage stamp, to any one desiring it.

D. C. LOWBER,

August56—1y

98 Magazine st., New Orleans.

## WYANDOT PROLIFIC CORN.

THE greatest Agricultural wonder of the age. Its discovery is worth millions to the country. Yield 150 bushels to the acre, (some say 300.) Plant only one kernel in a hill, each kernel will produce from 3 to 12 stalks, 10 to 12 feet high, 4 to 20 ears, 8 to 14 inches long, 10 to 16 rows of beautiful pearl white corn. Seed selected with care, warranted genuine, put up in a parcel sufficient to plant an acre. Price \$1.50, delivered in New York City. Money or P. O. stamps must accompany the order, with directions how to send.

Those who order sent by mail, and remit \$4, will receive, post paid, a parcel to plant an acre: \$2, half an acre; \$1, quarter of an acre. Orders for less double the above rates. Circulars showing the result from different parts of the Union, will be sent to all who address

J. C. THOMPSON,

Jan57—3t

Tompkinsville, Staten Island, N. Y.

## GEORGIA LAND OFFICE AT AUGUSTA.

THE undersigned respectfully informs the public generally, that they have opened an office in the city of Augusta, opposite the Insurance and State Banks, on Broad street, for the PURCHASE AND SALE OF LANDS AND REAL ESTATE of all descriptions, located in any section of Georgia, on Commission. Particular attention will be given to the sale and purchase of Lands in Cherokee and Southwestern Georgia. Persons wishing to have Lands sold, will present them with the best chain of title they are in possession of; also, the original plat and grant if they have it.

Those owning tracts of Lands, improved or unimproved, in any section of Georgia, and wishing to sell, will find this the most effectual medium of offering them. All we require is proper description of improved Lands, the nature of titles and terms, and they will be entered into our general Registry, free of charge. Commissions are charged only when sales are effected.

Persons wishing to make investments in Real Estate, or Lands, located in Cherokee, Southwestern Georgia, or any county in the State, will find it to their advantage to favor us with their orders.

DAVIDSON, GIRARDEY, WHITE & Co.

JAMES M. DAVIDSON, J. Woodville, Ga.

Feb56—tf

GIRARDEY WHITE & Co., Augusta, Ga.

## GEORGIA RAILROAD.



## CHANGE OF SCHEDULE.

## PASSENGER TRAINS.

LEAVE Augusta, daily at 6 A. M. and 5 P. M.

Arrive at Augusta daily at 5 A. M. and at 6 P. M.

Leave Atlanta daily at 8:50 A. M. and 6:15 P. M.

Arrive at Atlanta daily at 2:50 A. M. and at 3:36 P. M.

CONNECTING WITH ATHENS BRANCH.  
Arriving and leaving Union Point daily (Sundays excepted) at 10 A. M. and leaving at 2:30 P. M.

WITH WASHINGTON BRANCH.

Arriving at Cumming daily (Sundays excepted) at 9 A. M.

Leaving " " 3:30 P. M.

WITH SOUTH CAROLINA TRAINS.

Leaving Augusta daily at 9:30 A. M. and 9:50 P. M.

Arriving at Augusta daily at 3 P. M. and 4:30 A. M.

WITH ATLANTA AND GRANGE RAILROAD.

Leaving Atlanta daily at 3:30 A. M. and 4:45 P. M.

Arriving at " " 7:35 A. M. and 5:35 P. M.

WITH WESTERN AND ATLANTIC RAILROAD.

Leaving Atlanta daily at 9 A. M. and 6 P. M.

Arriving at " " 3 A. M. and 3 P. M.

GEO. YONGE, General Superintendent.

July 14th, 1855.

Aug55—tf

## SOUTHERN CULTIVATOR FOR 1854.

BOUND volumes of the SOUTHERN CULTIVATOR for 1854 may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.50. Address

WM. S. JONES, Augusta, Ga.

## THE CHINESE PEA.

THE most PROLIFIC PEA known; well adapted to poor lands and yielding more to the amount planted and the acre than any other, by an hundred per cent. One pea planted yielding a half gallon, if allowed proper distance to spread. The peas growing in bunches, save great labor in gathering. The vines are eaten greedily by stock, and the peas unsurpassed for the table in delicacy and richness of flavor.

Any one wishing them can have a package containing half a pint (from 6 to 7 ounces) sent per mail, postage paid, by remitting us \$1.30—(\$1 in current funds and 30 cents in postage stamps.) Any one not perfectly satisfied with the Pea will have his money returned. Address D. B. PLUMB & CO., Augusta, Ga.

For distant Agencies, address  
Nov 56—3t

D. REDMOND,  
Augusta, Ga.

## FRESH GARDEN SEEDS.

WE are now receiving our supply of choice GARDEN SEEDS, which we warrant to be GENUINE and of the crop of 1856. Those who purchase our seed may rely upon getting a fresh article as we keep no OLD seed on hand.

For Merchants supplied at a liberal discount.

Nov 56—H

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Broad-st., Augusta, Ga.

## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embraces the Deodar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vitae, Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c., &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address [Dec 56—tf] D. REDMOND, Augusta, Ga.

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Descriptive Catalogues sent, per mail, free of postage.  
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OSAGE Orange, Macartney, Cherokee and other running ROSES for defensive and protective Hedges. Also, the Enonymus, Cape Jasmin, "Mock Orange," English Laurel and other beautiful Evergreens for Ornamental Hedges. Osier or Basket Willow cuttings, of the best varieties. Catalogues sent gratis. Address D. REDMOND, Augusta, Ga.

Dec 56—tf

## THOROUGH BRED NORTH DEVON AND AYRSHIRE BULLS.

I OFFER for sale a few choice young BULLS, bred from superior Stock, with full pedigrees. For particulars, address me at No. 23 Fulton street, New York City A. M. TREDWELL, Importer, Breeder and Dealer in North Devon and Ayrshire Cattle. Residence Madison, Morris county, New York.

Dec 56—3mo

## GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address WM. N. WHITE, Athens, Ga.

May 56—tf

## COTTON SEED.

1,000 BUSHELS—Olive—very pure. Price fifty cents a bushel at my gin, or forwarded to cash orders at fifty cents per sack extra. Also, 1,000 bushels "Growder," equally pure and very productive, an early opener, growing and making till late. The young bolls do not dry up on the stalk, nor does it shed as other varieties do. Address DR. A. W. WASHBURN, Yazoo City, Mississippi.

Nov 56—6t

## AUGUSTA NURSERY.

## Extensive Collection of Selected Roses and Southern Raised Fruit Trees.

F. A. MAUGE would respectfully inform the amateurs of Roses, that he has now a superb collection of new and rare varieties, which he will be happy to supply such as may desire them. His prices to Nurserymen will be as low as those of any Nursery at the North, and his Rose Bushes will be generally of a larger size. He has also made recent additions to his stock of FRUIT TREES, and can now supply fine sorts of the following varieties: Apples, Pears, Quinces, Peaches, Nectarines, Apricots, Plums, Cherries, Soft Shell Almonds, English Walnuts, and Hazelnuts.

Also, GREEN-HOUSE PLANTS, such as Camellia Japonica, Orange and Lemon Trees, &c., and hardy Flowering and Ornamental Shrubs. Orders from the country will be promptly attended to, and Trees and Shrubs carefully packed and directed.

Osage Orange Fruit for sale at \$1 per dozen.

Catalogues of Roses and Fruit Trees will be sent gratis, to all post-paid letters. Address F. A. MAUGE, Augusta, Ga.

Dec 56—4t

## LANDS IN SOUTH WESTERN GEORGIA For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany y 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

W. W. CHEEVER,

Albany, Ga., Oct. 10th, 1856.

Nov 56—tf

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Sommersville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska;" a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

June 56—tf

JAMES R. FERGUSON,  
Memphis, Tenn.

## CENTRAL RAILROAD.



## CHANGE OF SCHEDULE.

ON and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

## BETWEEN SAVANNAH AND MACON.

Leaves Savannah Daily at	5.00 A. M.	and	12.15 P. M.
Arrive in Macon	2.15 P. M.	"	1.00 A. M.
Leave Macon	11.45 A. M.	"	9.30 P. M.
Arrive in Savannah	10.45 P. M.	"	7.20 A. M.

## BETWEEN SAVANNAH AND AUGUSTA.

Leave Savannah	12.15 P. M.	and	8.30 P. M.
Arrive in Augusta	8.45 P. M.	"	5.30 A. M.
Leave Augusta	6.00 A. M.	"	4.30 P. M.
Arrive in Savannah	1.30 P. M.	"	10.45 P. M.

## BETWEEN MACON AND AUGUSTA.

Leave Macon	11.45 A. M.	and	9.30 P. M.
Arrive in Augusta	8.45 P. M.	"	5.30 A. M.
Leave Augusta	6.00 A. M.	"	4.30 P. M.
Arrive in Macon	2.15 P. M.	"	1.00 A. M.

## BETWEEN SAVANNAH, MILLEDGEVILLE &amp; EATONTON.

Leave Savannah	5.00 A. M.
Arrive in Milledgeville	2.45 P. M.
Leave Macon	11.45 A. M.
Arrive in Eatonton	5.00 P. M.

W. M. WADLEY, Gen'l Superintendent.

Savannah, Ga., Oct., 12, 1855.

July 56—tf

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## THE CHEAPEST AND BEST.

WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the mill most liable to wear being separated from the body, it can be easily changed or removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, and is now on hand at the County Fairs of various States.

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It offers no rival to the machine and is a complete labor saving machine. JOHN & THOS. A. GONNES.

1857—47

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At 100—C. D. REDMOND, Augusta, Ga.

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Nov 30—47 Augusta, Ga.

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CARMICHAEL & SPAN.

Augusta, Ga.

April 30—City

1857!

1857!

## SOUTHERN CULTIVATOR,

## A MONTHLY JOURNAL.

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume commences in January,

1857.

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## FLOWER SEEDS FOR THE SOUTH

HAVING experienced the great difficulty in obtaining reliable Flower Seeds suitable to the South, I have raised a small quantity, which I am now offering to the public. I would particularly draw the attention of the Ladies to the unsurpassed collections of DOUBLE STOCK GILLIFLOWERS, TEN WEEKS STOCKS, CARNATIONS, GERMAN ASTERS, WALLFLOWERS, HOLLYHOCKS, and many others:

AT TEN CENTS A PAPER.	
Double Stock Gilliflowers.	Delphinium Ajacis.
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Centauria corymbosa.	Guaiacum tomentosum.

By Orders, enclosing the money and a three cent postage stamp for every dollar worth of seed sent to P. M. & L. EITNER, Augusta, Ga., or to the subscriber, will meet with prompt attention.

ROBERT NELSON.

1857—47

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Farmers and Mechanics to the PORTABLE STEAM ENGINES, of which he has the agency in New Orleans. They are so simple in their construction that any novice of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, planing saw mills or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they are so light that would run on wheels, and be moved to any place by a single horse. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day, between 8 and 10 o'clock, and all are invited to call and inspect it. The Plan is especially suitable for the use of the subscriber in the introduction of these engines, to take the place of horsepower in grinding cotton and running other machinery, requiring a 6, 8, or 10 horse engine is much less costly than the expense of feeding the same number of horses.

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21 Horse Power.....	\$375
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# SOUTHERN CULTIVATOR.



N. ORR, SE. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV.

AUGUSTA, GA., MARCH, 1857.

NO. 3.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH---(MARCH.)

#### THE PLANTATION.

*Provision Crops and Provender.*—Put in, as soon as the season will allow, an abundant supply of *Corn*, Irish and Sweet *Potatoes*, *Spring Oats*, early *Cow Peas*, *Millet*, *Doura* and common *Corn* (broadcast and in the drill, for fodder,) *Lucerne*, in drill, &c., &c. The *Chinese Sugar Cane* should also be planted and still farther tested as a syrup plant. For particulars of making, &c., see pamphlets sent per mail by the agents.

In preparing for your regular *Corn* crop, plow or sub-soil your land 10 to 12 inches deep (15 inches would be far better) manure heavily and plant early. Do not lose a moment after the danger of late frost is over.

As soon as you have finished the planting of *Corn* and other provision crops, prepare for *Cotton*, respecting which are various articles in present and former numbers.

*Sweet Potatoes* should now be bedded out and provision made for an abundant supply of "draws." No crop cultivated in the South is more worthy of attention than the sweet Potato. It is one of the most valuable crops for man or beast, and no planter should fail to have full "banks" at the setting in of winter, even if he does not make a "big crop" of *Cotton*. The *Haiti* (white) *Yams*, the *Yellow Yams*, and the Red "Negro Killers" (so called) are all fine and productive varieties.

*Irish Potatoes* should be planted in drills 3 feet apart and covered with a thick layer of pine straw or leaves, as heretofore directed.

*Chinese Sugar Cane* should also be sown plentifully during the present and the next two months, for green and dried forage. Plant the *Chinese Sugar Cane* seed far away from all plants of the *Millet* family, such as *Doura*, *Corn*, &c. Also, sow *Lucerne* or, "Chillian Clover." We prefer the drill system—land deep and rich—for these crops.

#### THE KITCHEN GARDEN.

If you have over-wintered Cabbage plants, set them

out now. Sow more Cabbage seed to head in the summer. *Flat Dutch* is the best. Thin out *Turnips*, as soon as they have four leaves; leaving them at the distance of six inches apart; and sow more *Turnip* seed; *Early White Dutch* and *Red Topped Dutch* are the best for spring use. If you did not sow *Onion* seed (black) last month, do it at once; they will come into use in the latter part of the summer, when all that were raised from sets or buttons are gone. If you did sow *Black Onion* seed in September, it can now be transplanted. Sow *Carrots*, *Beets*, ("Extra Early" is the finest) *Parsnips*, *Salsify*, *Lettuce*, *Radishes*, *Thyme*, *Parsley*, and *Rape* (for early greens.) Plant all in rows 15 inches apart. Sow, also, a little spot with *Celery* and protect them from the sun. When *Cherry* trees are in bloom plant *Snap Beans*; and when *Apple* trees are in flower plant *Squashes* (*Scallop Squash* is the best) in hills 3 feet apart; also, *Cucumbers* and *Muskmelons* 6 feet apart; the *Nutmeg* and *Citron* *Melons* are very fine and the earliest; *Beechwood Melon* is very superior, but a little later. All vines are greatly benefited by guano or poultry manure. At the same time, also, sow *Okra*, *Tomatoes* and *Egg Plants*. Hill up *Rhubarb*. *Asparagus* will now begin to sprout; don't suffer any to run up to seed, but cut all down. *Cabbages*, which have been set out, and are starting to grow, should once a week have a watering of liquid manure—a shovelful of chicken manure, dissolved in 10 gallons of water, will be found an excellent fertilizer for them.

All vegetables, that already have a start, should have a good hoeing by the latter part of this month.

Plant a full crop of English *Peas*, as heretofore directed.

#### THE ORCHARD AND FRUIT GARDEN.

If you have not finished pruning your orchard, do it at once, omitting only such trees as are growing too luxuriantly to bear. Such ought not to be pruned until the leaves are pretty well sprouted. By this method, such trees will get checked and go to bearing; should, however, this late pruning not be sufficient, give them another severe pruning in the middle of July; that will prove satisfactory.

As soon as the trees are beginning to bloom, hang up a number of wide-mouthed bottles, half filled with molasses-water, in your trees—you will catch a great number of

insects and thus prevent them from doing injury to your fruit.

#### THE FLOWER GARDEN.

Propagate *Dahlias* as soon as you can see the sprouts or buds; with a sharp knife split the stem right through, leaving a piece of the stem and one or two buds to each piece; plant them so deep as to be covered with at least 4 inches of soil. Tie up all your flowering plants to stakes; the wood of the China tree, when splintered out, furnish the best and most durable stakes where Cypress cannot be had. If annual flower-seed has not been sown yet, it should be done at once. Recollect, that fine seeds will only need to be covered slightly. If covered deeply, they will not sprout.

#### A LECTURE ON LABOR.

BY DANIEL LEE, M.D., PROFESSOR OF AGRICULTURE IN THE UNIVERSITY OF GEORGIA, JANUARY, 1857.

(Concluded from our February number, page 42.)

To take a philosophical view of Labor, and develop the physical and intellectual man equally, and with the greatest success, the instruction of the plantation should partake more of the character of a first class school; and that knowledge which is most useful to the citizen, and the profession of tillage and husbandry, should be as diligently cultivated as the soil, for without a knowledge of the true principles of agriculture, planters uniformly impoverish the land, and ultimately reap poor and unprofitable crops, because Labor is misdirected and misapplied. On the other hand, educational institutions ought to have a broader basis, that the higher seminaries of learning and science may come nearer to the masses, and supply the most urgent and obvious wants of advancing civilization. It is folly in the extreme to suppose that the working muscle of the citizen and cultivated common sense ought to be separated. Laboring hands and enlightened, cultivated intellects should be no farther apart than are the members of one body which the Creator has joined for the highest worth and usefulness of both. If any one, by mental and moral culture alone, were able to dispense with food, respiration and animal heat; if the health of the mind did not require the habitual exercise of the limbs as well as of the brain; if physical toil were not as necessary to the moral and social progress of society as it is beneficial to the constitution of the laborer; I should have less confidence in the wisdom of seeking to improve a whole community by having some work more and read less, some read and think more and work less, and many both work and read more and play less.

Public opinion commits a serious fault when it exacts the cruel sacrifice of much that is valuable in the life of a laboring man, by compelling him to submit to the preternatural development of a few muscles at the expense of all his other faculties and powers. Nurserymen often dwarf trees to obtain early fruit; but such treatment of man is infinitely worse, for it perpetuates both ignorance and brutality in the very heart of a nation. In England, on the Continent of Europe, and in this country, labor has

been divided and subdivided to an extent quite incompatible with the dignity of the industrial arts, the general diffusion of useful knowledge, and that accumulation of capital which is so eagerly sought by this class of specialities. It renders the producing classes narrow-minded, and incapable of wise self-government; so that they consume in mere animal indulgences a large share of the wealth which their industry calls into existence.

PORTER has shown that the addition to the wealth of England—its production over consumption—is about fifty million pounds sterling a year; or not far from two hundred and fifty million dollars of our money. He has also proved from official and reliable data that the people of England annually consume spiritous liquors, including beer, and tobacco to the amount of fifty thousand pounds; so that if intoxicating drinks and a poisonous weed were no longer used, the capital of England might be thereby augmented twice as fast as it now is. These are important and striking facts. They show that the wealth of their chest nation in the world, whose surplus capital is loaned to all responsible borrowers in other countries, and which does so much to construct American railways, manufacture American cotton, and expand American agriculture and commerce, might easily be doubled if the producers of wealth in England would only deny themselves a few luxuries, and lay up the money which they cost, which luxuries, upon the whole, injure far more than they benefit the consumers. But self-denial and self-government are more easily taught than practiced. Habits of indulgence grow with the facilities for their gratification; and therefore we see the proceeds of human industry consumed in one way or another, nearly as fast as produced. The possession of money encourages weak minds first to be idle, and thus cease to add wealth to the community; and secondly, to double the daily cost of food and drink by more expensive living, and double the yearly expense of clothing. With the means of gratification, one's vanity enlarges its consumption with marvelous rapidity; till at length the fortune being exhausted by extravagance and vice, stern necessity compels a return to labor and better habits.

Unless a wise use be made of money, or of liberty, its possession operates more like a curse than a blessing. Suppose every negro in the Southern States had full liberty to drink intoxicating liquors, and command of time and labor in from and nourish an appetite for the drams which lead to drunkenness? What would such liberty be worth to persons who would inevitably abuse it to their own serious injury? And what is money worth to one whose common sense and self-discipline are so little developed that it is used to patronize extravagance and strengthen vice and crime? With too much freedom youth runs riot on the pocket funds created by honest labor, because the community signally fails to teach through its seminaries of learning and by the force of example, the great science of *keeping* as well as *producing* property.

To labor hard and faithfully to command gold and silver no matter whether the wages of one day's work, or the proceeds of ten thousand, and then not know how to keep, nor how to use the funds so acquired, is evidently working for naught. There is wealth enough annually called into existence soon to enrich every member of society if properly husbanded, but needful reforms in habits, customs and fashions are not encouraged by an increase of capital. Hence, in prosperous times, when labor is in good demand and well rewarded, the masses ever live up to their incomes. A few, however, are more considerate, and bring their expenses below their means of purchase, and thus add to the taxable property of the State. So far as my observation and means of information extend, the planters of the South greatly excel in this virtue. Divide



the property of Georgia and South Carolina equally among the people of these States, excluding slaves, and each will have from two and half to three times more property than the people of the wealthy State of New York by a similar division.

In his late Report, the Secretary of the Treasury adds a fraction over 15 per cent. to the census valuation of 1850 to obtain the present value of the real and personal property of the several States. By this official estimate every man, woman and child in Georgia, exceeding servants for life, would have, an equal division, \$1,065. A similar division in South Carolina gives \$1,203. In Rhode Island which is the wealthiest, *per capita*, of the Northern States, a like division gives \$628. Massachusetts has 606; and New York about \$400; or one-third as much as South Carolina.

With such creditable and undeniable facts in their favor, should not South Carolina and Georgia be thankful to a good Providence, and content with the advantages which they now enjoy? The climate of New York will not compare with that of the Cotton growing States for agricultural purposes; and the South still has ten times more land than laborers either black or white. Sagacious Southerners see the necessity of having more cultivators of the soil, and the only practical question is whether they shall be black or white, bond or free.

Looking mainly to the laws of Nature for instruction and guidance, I venture to suggest that laborers of a tropical origin will ever be found best for the cultivation of tropical plants grown in the strictly tropical "sunny South." The fact should be borne in mind that the demand for these plants or their constituents increases much faster than population in Europe, and in all other parts of the world, and is likely to do so for one or two centuries at least. It should also be remembered that the Southern States contain over six hundred million acres of land, and after persons of European extraction cultivate with free labor all the ground they can be persuaded to cultivate, there will remain Cotton, Rice and Sugar lands enough to give employment to twenty million negroes. This fact indicates an agricultural power in the Southern Atlantic and Gulf States which no one has to my knowledge laid before the public. Time, however, will disclose the whole truth in reference alike to the Labor, the climate and the soil of the South. All that relates to its agriculture you will be expected to understand when you leave the University, so far as science and literature can inform you on the subject.

Here at Athens, although sufficiently elevated above the ocean to give us in part a Northern climate, we are able to grow a crop of winter wheat, and one of maize on the same land in the course of a year. Wheat and maize are the most valuable bread plants known; and while our climate is so favorable as to bring both to full maturity, *in succession*, in twelve months, that of England is too cold to mature corn in any part of the year, and barely suffices to ripen one crop of wheat. At an elevation of 1300 feet above the sea, wheat does not fully ripen in Great Britain.

Georgia contains 58,000 square miles, or 37,120,000 acres. Of these, the census of 1850 returns 6,378,479 as under improvement. Taking the permanent fertility of the land into consideration as well as immediate returns for Labor, there can be no question that better results would be obtained if our best skill, labor and other available means were concentrated on half the surface now gone over. In truth we have an agricultural force barely adequate to the proper cultivation of three million of our thirty-seven million acres. This is one reason why our extraordinary advantages of *climate* are so little appreciated both at home and abroad. Its agricultural capacity is about twice that of New England; and the surplus

fruits of our planting industry, over and above consumption, are probably four times larger than those of the farming industry of the most Northern States. Such is the difference in climate, soil and markets, that an amount of labor which in one place barely commands a comfortable subsistence, in another, secures a fortune in addition to a good living.

Regarded as a whole, the climate of Georgia is admirably adapted to both white and colored laborers—to planting and farming. There is ample room for the profitable employment of all kinds of agricultural industry; and it will unquestionably pay better at present than either commercial or manufacturing industry. A sparse population scattered over a million square miles need hardly undertake every branch of the labor carried on in densely populated countries, and expect to excel in all. So long as land shall be in excess of occupants, the self multiplying power of agricultural plants and the animals will give to Southern tillage and stock husbandry, advantages more inviting and valuable than any which are likely to be found in other branches of productive labor. When the planter by putting one seed of corn into the ground gets two ears from it, and from one to two thousand seeds in return, Nature assists his Labor by the vital force in the parent seed, in a way and to a degree, without a parallel in any other department of the whole circle of industrial arts. Animal vitality is no less the friend and laborer of the skilful husbandman. It is, however, my duty to say now, and illustrate hereafter, that neither animal nor vegetable vitality confers upon agriculture, and through it upon mankind at large, a tithe of the benefits both will confer when Labor and Science are equally honored, fostered and understood by the American people.

In these college halls you are learning from experience something of the labor of science; hereafter the science of labor will doubtless claim no inconsiderable share of your attention. It is indeed a profound and interesting department of knowledge, simple and common as human labor, whether physical or mental, appears to the feeble thinker. The most advanced science teaches man that he must labor in harmony with Nature, or her antagonism will, sooner or later, defeat his best laid schemes for the improper acquisition of food, raiment, wealth, or power. Is it consistent with the laws of Nature that the least cultivated Africans, as well as the more intelligent Asiatics and Europeans, shall be civilized by due personal efforts, and the proper instruction and care of civilized communities.

I know no other opposition to the industrial education of negroes by the cultivation of cotton, rice and sugar in this country, except that which attaches to, and arises from the apprentice system of planting. Great pains have been taken to prejudice the hundreds of thousands of European laborers who have recently emigrated to the United States, against the South as a field for the successful exercise of their skill and industry. This, and the common notion that a white man needs an umbrella over his head while working in a cotton field, to lessen the depressing influence of solar heat, are likely long to keep most Europeans from attempting to compete with negroes in the production of cotton and other tropical plants. Other branches of industry, and other kinds of agriculture, more European in character and associations, will hardly fail to command a preference, where the laborer is free to gratify his taste, and turn his previously acquired agricultural knowledge to an immediate use and profit. Nor is the daily exposure from morning till night to the direct rays of a burning sun, while at work, very inviting to a white person born and raised in a Southern Atlantic or Gulf State. Hence, the never-ceasing demand for colored laborers in the large cotton growing districts, and their continuous migration from the tobacco



raising States of Maryland and Virginia to the warmer latitudes of the South. But judging from the unprecedented high price, now paid for this kind of labor, the supply falls much below the positive wants of the consumers of cotton and sugar. Are these growing wants to be satisfied? and if so, in what way? This is no abstract, nor idle question; but one demanding a practical, not a theoretical solution. There are negroes enough in Africa, if properly employed, to produce all the coffee, sugar, rice and cotton needed by more cultivated people; but opinion is greatly in conflict as to *what is the proper way* to employ colored laborers? Time, which settles so many controversies and doubts, will ere long settle this grand dispute by the light of Southern experience and the pressing wants of mankind.

Telegraph wires will soon bring Africa, Asia and Europe very near to the New World; and our planting advantages for the elevation of the dark-skinned pagans who inhabit the vast continent South of the Mediterranean, can hardly fail of being better understood in England and France, where some four-fifths of our cotton is manufactured. Science is making our agriculture a most valuable and instructive School for the benefit of blacks not less than whites. In time, we can send colored planters to Africa, every way qualified to civilize and christianize the natives of that country if it be possible. Unite the steady industry and varied attainments inseparable from the most advanced agriculture, and you unavoidably establish and maintain one of the most effective educational institutions in the world. It teaches not only the primary duty of labor and skill therein, but cultivates every christian feeling and principle, by which the heart and the head are equally improved. It would be a serious reflection on any civilized, educated community to assert, that their influence on uncivilized people would not, and could not teach them many useful lessons. The duty of the best informed to instruct all who are less informed, and thus more rapidly advance the knowledge and happiness of all classes, is too little urged on public attention. The honorable and excellent labor of learning and teaching to maintain universal progress among mankind is clearly susceptible of infinite extension; and it deserves a better analysis than I can give it in the present lecture. To direct the labors of sincere philanthropists into proper channels is an object of no small moment; for the activity of expanding benevolence has made it one of the greatest powers of the age. As productive industry and general intelligence render man less a slave to his every-day animal wants, he has leisure to cultivate his higher and nobler faculties and sympathies; while his industrious habits, acquired in the school of physical necessities, will make him an earnest and steady worker in any new enterprise, whether in philanthropy, religion, politics or all three combined. Industry must be met by equal industry; and if it is not, every idle man virtually advertises himself as a servant who stands in need of a master. Slavery long continued makes a man a brute, if not something a little worse. To rise in virtue, knowledge, power, and usefulness, we should first learn the *art of learning*. Master this art, and your success in college will be equally creditable to yourselves, gratifying to your friends, and advantageous to the public.

**CHLORIDE OF LIME FOR STEEPING SEED.**—In Germany it is considered of great efficacy. Beans steeped four hours in a solution of a quarter of an ounce of chloride in a gallon of water, were up and in rough leaf before others sown at the same time were above ground; and an equal difference was observable with other vegetables. Those who are ambitious for having the earliest vegetables should give it a trial.—*Ohio Valley Farmer.*

#### GRASSES FOR THE SOUTH, &c.

**EDITORS SOUTHERN CULTIVATOR**—Giving credit to whom it is due, is sheer justice; and if in so doing one individual be made conspicuous, and it be done with a proper motive, no one can find fault. That the whole South need "line upon line and precept upon precept" to induce a change, no one doubts; and it is not to be found fault with, for it is better to be slow in changing than to be ever changing. No one thing is more desirable, in a pecuniary point of view, than pastures; and nothing more difficult to get Southern men to attempt. The idea is continually before planters eyes, to *kill grasses*; and to name pastures is the next thing to insulting them. Notwithstanding this, I must plead for the grasses, and ask the many friends I have had the good fortune to make by my labors in the agricultural way, to believe me to be in this, as always, laboring for their good.

Whilst on my trip eastward, I met with a friend of my youth, who was kind enough to say he had regarded me as wild, when urging, in by-gone days, the Bermuda Grass; looking on it as a curse; and did now acknowledge he was wrong, and was putting out some hundred or more acre, regarding it as the best grass he ever saw. Since my return, a few days since, a planting friend asking my opinion as regards Devons, said he wanted some 50 or 100 acres of Bermuda; he has now some twenty or more acres; at once frankly admitting his former prejudice.

I would say to all planters, try other grasses, try all grasses; let it be on a small scale so as not to injure by the cost, and if you need to see, so as to believe, visit the farm of Col. R. PETERS. I again repeat, he is doing for the South as much as any other man, by way of proving that grasses will grow, that stock can be raised, that a fair interest can be made. Readers of the agricultural press will remember the report of Col. CROOM, of Alabama, as to Clover; and I hope ere many years that many will be induced to follow the above examples.

The planter who has never had the advantage of good pastures cannot appreciate the difference in the saving of corn, in the condition of stock, and the facility of raising a supply. Depending as many do upon corn and fodder, they will not look at the cost in the first place, and upon the immense labor; besides, could a planter of 10 hands save only 10 bushels of corn per work animal, admit he had 5 for the plantation and only 1 for his family, thus 60 bushels extra to feed to hogs, or say 1-2 bushel for four months of the hardest time on hogs, what would be the gain in young stock and in sows? I would not be afraid to open an insurance office and insure that one acre of *good land* well prepared and well set in Bermuda Grass, kept for these 6 animals, that it alone would save those 60 bushels in the year. Only one thorough preparation is needed; now calculate the saving and see how economical even to enclose that acre so the grass could never spread, admitting it to be the great evil. To make 60 bushels of corn is worth, labor alone, not less than, say, \$15, at 25 cents per bushel, and if 30 bushels per acre, a rent on one additional acre, but put at only \$10, the interest on \$100 at 10 per cent., and a planter can safely invest at 10 per cent. Then if preparing a hedging the acre cost \$100, the planter is safe.

But this is not all. Suppose 10 acres of rye, sown 11-2 bushels per acre every September and kept alone for pasture and turned under, say 15th of April, when cotton is planted, it costs, say 15 bushels at 75 cents, \$11.25; for the rye does about as well sown on a well cultivated cotton field, as if it were plowed just then. Then \$11.25 and a hand to sow the grain \$1 more, \$12.25; will it not feed

as much as 25 bushel of corn worth 50 cents per bushel, \$12.50 in December, February and March? Try it and report.

I have no sort of idea that the Rescue will, at \$20 per bushel, begin to feed as many stock, yet I dare not discourage the Rescue, though I admit I have not confidence enough to pay \$20 per bushel, and if it produces only 50 bushels per acre to pay \$1000 per acre for the seed, it beats the Poniegranate and "Morus Multicaulis," so bad that both have retired before it.

Yours with all respect, &c.,  
M. W. PHILIPS.

Edwards, Miss., 1857.

#### OAT CULTURE AT THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—Conversing with two planters of much intelligence as well as long practice and skill in planting, the Oat was alluded to, when I stated that our excellent "Broomsedge," whom I claim as a personal friend, objects to oats being grown favorably upon the same land two years in succession, both of whom remembered to have seen a second crop of oats, and it a fair one, from the same land, though they had not tried it—the fact was a mere accident. Just here I would ask you to inquire, particularly, what was the result of a volunteer crop at the brick yard, near your city? When I saw the small field the oat was small, but was improving, and a very severe winter upon it, besides the land had not been plowed, and rather too much of a stand.

In 1839 and '40, I planted same field to oats, using a two horse plow both crops, preparing the land well, and covered with a two horse rake—land finely pulverized. The last crop was the best.

We had considerable discussion as to oats injuring land. One of the gentlemen, about my own age, but experienced at the plow from his childhood, not knowing my views, remarked that oats did injure land, and gave the reason—the same I have heretofore given—and without an argument or ceasing from his remarks until summed up, said the injury was in the management of the land by the owner—the bad management.

Which brought up the remark that causes my present writing. He said of all the varieties of the oat he had ever known, the one that several of us plant here is the best. This staggered me, as, in the month of February, he had said, his oat crop was lost, that his seed and labor was a loss from the remarkable cold weather.

I reminded him of this. He then asked me if I had plowed up my land and sown spring oats?

I told him I had, except a few acres to keep in the seed of the black oat.

To this he said, although he had to all appearances had his oats entirely killed, having examined; indeed I had looked over a part of his land; yet as he had to supply another plantation with seed and was rather behind, he could not get time to plow up, and in postponing he found his oats seemed to come from the roots and his crop was a good one.

This is new to me. I certainly did not see on much of his land, when turnip tops had made several inches growth after the freeze, any sign of oat vegetation, yet there was a stand, and a crop gathered.

This oat I have sown three or four years; it is a black oat; makes either a winter or a spring oat; is the heaviest oat I know, and does not grow so tall as the Egyptian (a white) oat. It begins to head out when quite low and grows up as it heads, so that, though of not more than 6 to 12 inches when heads are seen, the crop on good land will cut about 3 feet. They have sold at 75 cents and \$1 when others were to be had at 50 cents.

I regard the oat crop as a great object, and so far from

regarding it is an exhauster, think it can be so managed as to be an aid to improvement. There may be error in this, but if so, many of us are wrong. More of this ere long, perhaps through FRANK G. RUFFIN, of Richmond, Va.

Yours truly,

M. W. PHILIPS.

Edwards, Miss., 1857.

#### "HINTS FOR STOCK GROWERS."

EDITORS SOUTHERN CULTIVATOR—Why not say hints for the citizens of the South? See page 90 of the *Southern Cultivator* for 1856, March number. There are many Southern men who really believe that cotton planters do themselves an injury by providing anything which will ensure a certain independence. They seem to think that all we make that can be made by any other people reduces our customers. They seem to have the idea that if we make our own corn, meat and flour within the cotton growing region, that thus far we make people unable to buy our cotton.

A project has been proposed to form a neighborhood in which one man will grow cotton alone, another corn, another hogs, and so on, and then exchange and sell the surplus. I ask how much money would the cotton planter have clear?

My own opinion is, the Planters of the South should make their own supplies, such as the climate will admit of, except, perhaps, Sugar only, and if they have by this fewer purchasers, they will have more money. Because the diminution, if any, will be so trivial that it will never be felt. Let any one count up the cost to buy corn, fodder, meat, alone, and then how many extra bales to be made to pay for it.

That the South can grow hay and make beef and mutton cheaper than it can be made in Connecticut, in Massachusetts or in New York, no one will deny if he will look to land worth \$50 an acre. See Report of JOHN B. ADGER, from the *Farmer & Planter*, on the 84th and 85th pages of the March number of the *Southern Cultivator* for 1856. Suppose he only averaged 2 tons, his land not worth, perhaps, over \$25 cash, it will thus be equal to about 3 tons of \$50 land. But admit only 300 pounds per acre, will it not pay better than cotton? We of the South are the pronest people on the earth to talk of independence, and yet we are more dependent than any portion of this country at least. If we could be stimulated to making all necessities, we would be on the way to independence, and not until then.

As one of the citizens of the South, I am determined to make every exertion to not only make necessities, but to make a surplus. I have done so for years, and will do it again. The only true policy, in my humble opinion, is to be, all of us farmers; to have many things growing, so that whether it be dry or wet, whether we wake or sleep, something will be doing well. Rely upon no one thing. The reverse has and will ever cause ruin.

Yours, &c.,

A FARMER.

Mississippi, 1857.

In Cheshire, England, where the dairy is a great object of attention, it has been found that on pastures long used for this purpose, which had thereby become impoverished, the addition of bone dust to the land had resulted in the immediate augmentation of the crops on the land, of 700 per cent! Nor, need this excite our surprise, when it has been found by the strictest examination, that the milk of a single cow, will, in seventy-five years, exhaust the soil where she has pastured, of more than a ton of phosphate of lime, to say nothing of other substances.—*Ohio Valley Farmer*.

## RAISING STOCK IN THE SOUTH, &amp;c.

EDITORS SOUTHERN CULTIVATOR—Our country hereabouts, this morning, looks more like the *Icy* South than the "Sunny South." The trees everywhere are loaded with ice, and still raining, with the wind from North-east and the thermometer indicating 33° Fah. What will become of the stock is a problem I can't solve; that will depend entirely upon whether or not this weather continue. Planters are not prepared for such weather as this, not expecting it, and consequently their stock are badly provided for. More pigs and shoats die in this country than any country I ever saw, and the reason of this is to be found in the fact that our system of hog culture is defective. Instead of managing our sows so as to have them "bring forth" in March and April, and September and October, in mild weather, and thus the pigs grow up healthy, and get the start of hot and cold weather, the boar is permitted to run with the sows from January to December, and our crop of pigs not unfrequently come in winter, and in the spring we have a few little scrubby things that have lost all their vitality in such weather as this, and the sows are not in a condition to bring them at the time we want them.

If planters would manage like your correspondents, BRADBURY, of Georgia, and E. JINKINS, of Mississippi, they would overcome the difficulty in hog raising, which they say exists in the climate.

I read with no ordinary pleasure Mr. E. JINKINS' article in the December [1856] number of the *Cultivator*. I think, from his talk, that he believes that land can be improved in Mississippi, by manuring, rotation of crops and rest. If so I should be pleased to hear from him on the subject through your journal. I have been ridiculed here by some who call themselves P-l-a-n-t-e-r-s, because I contend that a worn-out place may be improved at less expense than one can be taken from the woods and brought into cultivation and improved in the way of building like the old one.

They say, "what! haul manure enough to improve 400 or 500 acres of land, and that, too, one or two miles!!"

No sir, I don't propose to do any such thing. No man that has a thimbleful of brains in his cranium would dream of such a thing. I propose to make the manure in the field where it is needed, and on the highest points, so that it may be carted, and with but little trouble; and in this way, together with rotation, subsoiling, rest—absolute rest—turning under pea vines and stubble, and guard draining and horizontal culture by which last to keep the manure where I put it, and the soils where Nature's God put it to improve a plantation.

In conclusion, permit me to say that I intend to make some experiment in the application of manure to different crops, and subsoiling, which perhaps may throw some light on the above subject, the result of which I will send you at the close of the year.

Yours, &c., G. D. HARMON.

Utica, Miss., Jan., 1857.

## BEES AND THEIR MANAGEMENT.

EDITORS SOUTHERN CULTIVATOR—The interrogatories of A. T. SHERRILL, and Mr. LATASTE's reply in your September [1856] number, and reply of "F. T." in October number, have awakened me to revive my own 34 years of experience; 13 years in Elbert County, Ga.; 12 years in Noxubee county, Miss., and 9 in Arkansas, with Bees. During which time I have been more liberally assisted by a pamphlet, or small book entitled "Buvar on the Honey Bee," in arriving at correct conclusions, than all

other reading (not a little) put together. Several assertions in that work I seriously doubted; such as the short life of the male bee (drone) 4 months) and worker bee 5½ months, and long life of the queen, not proved, but known to live 7 years; and the capacity of the workers, to raise a new queen, upon the sudden death of the old one. These doubts led me into various observations and experiments, to prove up for myself; and in every instance I found Bevan correct, and with all my heart would I recommend to all who desire correct information on Bee raising to purchase that truthful, and truly instructive work. Many other writings, that I have read, abound in hurtful errors.

Of all the luxuries vouchsafed to man, I know of none that man takes so little pains to cultivate, and on account of his ignorance, abuses so badly as the Bee. Often it is said, the moth, or insects have destroyed the bees; but 99 times out of 100 this is not so; they are lost either by the ignorance, or neglect of the owner; and I can unhesitatingly say, that I do not believe insects ever did destroy a strong healthy swarm. The simpleton takes the effect for the cause. The dunce when he finds his bees gone from a gum turns it up and finds it lined with cobwebs and insects, then he is certain that the insects have destroyed them. Thus charging on insects the very charge he ought to make against himself, for murdering by his neglect or ignorance his own most faithful and industrious slaves. But how is this? Do you set your gums exposed to all kinds of weather, cracked in many places? Do you set them on the ground, or so near that the toads and fowls of your yard can eat your bees at pleasure? If so, you deserve to lose your bees—you are the true murderer.

Bees are valiant and watchful, and when in full force, will defend their entrance from all intruders; that entrance should never be more than 5 inches long and 1-4 inch wide.

I have already invited the reader to Bevan for much useful information, and, to avoid being tedious, I will now give him my plan of management, which for simplicity, economy, and profit, is better than any I have seen or know of, and which makes my bees worth, in a poor honey country, at least \$10 per stand; yielding me 2 1-4 gallons of the best honey, and 2 pounds of wax per stand a year; worth \$2, or 20 per cent., on \$10.

I utterly repudiate the stoppage of swarming as destructive. Where is the fool that ever thought of raising hogs without new families, or anything else? So important a law of nature cannot be violated without ruin; hence all the fancy tales of bee palaces, bee houses, &c., are nothing but ingenious contrivances to destroy bees. The size of the gum should conform to the capacity of the country to produce honey.

[Here follows a description of gums, which we are obliged to omit, on account of not having the requisite cuts to accompany it. We will endeavor to illustrate the matter in a future number.—Eds.]

My gum bench is two inches higher on the back than the front, which gives a handsome descent from the back to the front—a material aid for the bees in carrying out their dead and filth. The lower end of the gum is so sloped as to stand erect on the bench, and is also 1-3 smaller than the upper end. The importance of this is to lessen the waste apartment, for it is here and at the mouth that all the battles are fought between the bees and their enemies; and the smaller this apartment is the less chance for the moth, especially with weak hives. The bench should not be less than 2 1-2 feet from the ground. And as much room diminishes swarming, when one wishes

many swarms, the head of the gum should be placed in August under the upper apartment, to remain until the next swarming season is over.

#### HOW TO MAKE A WEAK HIVE STRONG.

Take off the head of the gum, cut out the comb, until you come to the eggs that produce the little bee; then cease to use smoke; patiently wait awhile, and you will see the bees crawl up freely, and among them the queen will be easily known; capture and destroy her, for her weak laying qualities is the sole cause of the weak hive. But you will destroy the hive. Be easy; just close it up snugly and your faithful workmen and best of servants, will do the balance. The little workmen will go to work and build some rough cells over some of the eggs intended to raise the worker bee, and by feeding them on different food new queens are raised. These new queens fight for the rule until all are slayed but one, and in 50 days you will see your hive stronger. I don't believe it, some will say. You don't. Very well. Then tell me, if you ever knew anything to lay three kinds of eggs. Then how does it happen that there are three kinds of bees, unless one kind of egg produces 2 kinds of bees. Answer this, or no longer doubt a truth that I have proven.

#### THE PROPER TIME FOR ROBBING.

There is but one season of the year that will do every year to rob bees, and that is immediately after the swarming season. You can then with safety rob all but the young hives, and you can take all the good honey at or near the upper end of the gum.

Robbing after that must be done with caution, or else you destroy your bees. But you can rob as often as you please after that, even in the dead of winter. But you must always leave them enough for winter food. It is no uncommon thing for bees to gain no weight after the 1st of June; and hence close robbing is dangerous. By weighing, I have known them to gain finely one week, and lose the next. Once I had a very large swarm of 10 pounds to gain 41 pounds in 11 days, and after 5 weeks old it gained but 10 pounds the balance of the year, and I have had a swarm that come the last of August that gained but 6 pounds, yet lived through the winter; another that weighed but 10 pounds, including bees, that also lived; but these are rare cases. I have had some eight swarms in August and all lived, but rarely ever had one the last of May that did live. Fifteen pounds clear of the gum, makes a safe hive, to live through the winter.

I doubt the propriety of cultivating anything to feed bees. But it is just to say that I have tried only Buckwheat, and then I observed, by actual weighing of beehives, that when they gained fastest they paid the least attention to Buckwheat; although it was blooming finely, I have often watched bees on flowers, and find all gathering bee bread, and I seriously doubt whether they collect any honey from flowers; but where they get it from is a mystery to me. But I believe the perspiration from leaves is the main resource, having noticed many employed on green leaves when they were making large gains.

Bevan is right about the life time of bees. Now I close by assuring the reader that proof and proven facts, have been my only guide. And if I can advance the cause of my little, but great favorite, I will respond to queries put in the *Cultivator*. Yours, &c.,

M. T. McGEHEE.

Bradley Co., Ark., 1856.

**CHEAP FRUIT.**—An American, at Gibraltar, writes that he bought "two pounds of grapes, two pounds of apples, two of peaches, two of lemons, and a basket to carry them, and all for a quarter of a dollar."

#### SOWING AND REAPING.

Sow with a generous hand,  
Pause not for toil or pain,  
Weary not thro' the heat of summer,  
Weary not thro' the cold spring rain;  
But wait till the autumn comes  
For the sheaves of golden grain.

Scatter the seed, and fear not  
A table will be spread;  
What matter if you are too weary  
To eat your hard-earned bread?  
Sow while the earth is broken,  
For the hungry must be fed.

Sow; while the seeds are lying  
In the warm earth's bosom deep,  
And your warm tears fall upon it—  
They will stir in their quiet sleep;  
And the green blades rise the quicker,  
Perchance for the tears you weep.

Then sow—for the hours are fleeting,  
And the seed must fall to-day;  
And care not what hands shall reap it,  
Or if you shall have passed away,  
Before the waving corn-fields  
Shall gladden the sunny day.

Sow, and look onward—upward—  
Where the starry light appears—  
Where, in spite of the coward's doubting,  
Or your own heart's trembling fears,  
You shall reap in joy the harvest  
You have sown to day in tears.

[English Paper.]

#### ECONOMY OF FEEDING FARM STOCK BY Steamed Food.

THE scarcity of grain in the years 1854 and 1856 has led to the investigation of more economical methods of feeding farm stock. Thousands of farmers who had formerly been in the habit of feeding hogs, cattle, and horses, upon dry corn in the ear, have found a saving of at least twenty per cent. in grinding or cleaning the corn fed to their stock. But recently, still greater improvement has been adopted by a system of more thorough preparation of the food by steaming or boiling, which renders it more perfectly adapted to the natural demand of the animal economy, thus securing the perfect digestion of all the grain consumed.

On the 16th of July last, Mr. Samuel H. Clay, of Bourbon county, Ky., put up six thrifty hogs, averaging in weight about 230 pounds each. These he fed twelve days on cooked meal—taking fifty pounds of meal, adding water, and boiling it until the meal had absorbed sufficient water to increase the bulk to four hundred and fifty pounds of mush. This was fed to the six hogs twelve days. The gain of each hog was from twenty five to fifty pounds. This was by the way of preparation for the experiment. The hogs were then separated into three lots, and placed in close pens, and fed as follows: The first lot, Nos. 1 and 2, were fed on boiled corn, and consumed, in this time, nearly seven bushels when dry. Under this treatment the two gained 102 pounds. Nos. 3 and 4 were fed the same length of time on boiled meal, prepared as detailed above. The meal, when dry, was less than five bushels; No. 3 gained thirty pounds, and 4 gained fifty pounds.

Numbers 5 and six were fed on dry corn for the same period, and consumed seven bushels and one peck. No. 5 gained 10 pounds and No. 6 gained 32 pounds. Taking

the average gain of the hogs in the separate pens under the various forms of feeding, and estimating the value of the corn at 23 cents per bushel, it brings the cost of the meat gained per pound as follows: Nos. 1 and 2, fed on boiled corn, at 1 cent and 9 mills per pound; Nos. 3 and 4, fed on cooked meal, at 1 cent and six mills per pound; and Nos. 5 and 6, fed on dry, cost 4 cents and 8 mills per pound.

At the end of thirty days, the hogs were changed and fed as follows: Nos. 5 and 6, that had been fed on dry corn, were changed and fed on cooked meal for twenty-six days; they consumed in that time six bushels, and gained together seventy-four pounds. Nos. 3 and 4, that had been fed on cooked meal, were now fed the same length of time (twenty-six days) on dry corn, and consumed six and a half bushels. No. 3 gained thirty-four pounds, and No. 4 gained ten pounds. Nos. 1 and 2 were continued on boiled corn, with about the same result as on the first trial. Estimating the corn as above, the cost of the gain of Nos. 5 and 6, fed on boiled meal, was one and a half cents per pound. The gain of Nos. 3 and 4, fed on dry corn, cost four cents and one mill per pound.

Taking the extremes in the experiment, it will be seen that No. 5, when fed on dry corn, consumed 202½ pounds and gained but ten pounds in thirty days, which brings the cost of the pork gained at ten cents and one mill per pound. The same animal, when put on boiled meal, in the second trial of twenty-six days, consumed but 117 pounds and gained 40 pounds, which reduces the cost to one cent and four mills per pound. No. 4, when fed on cooked meal, reduced the cost to one cent and three mills per pound, and when changed to dry corn increased the cost to nine cents and one mill per pound.

Recent trials in feeding dairy cows on steamed food, show equal advantage in the increase of milk and condition of cows over the ordinary method of feeding.—*Valley Farmer*.

#### A MISCELLANEOUS LETTER.

1. *Cholera in Fowls*—Charcoal as a Remedy. 2. *Hog Hair to Manure Irish Potatoes*. 3. *A Cock with Four Spurs*. 4. *Scuppernong Metemorphosis*. 5. *Shelter for Stock*.

EDITORS SOUTHERN CULTIVATOR—Sending you my dollar for the next years subscription to the *Cultivator*, I will add a line or two on some other subjects.

1. **CHOLERA IN FOWLS.**—Have you or any of your subscribers ever tried charcoal for this disease? A neighbor of mine, not long since, had two chickens attacked with the above epidemic, and in order to get them out of the way, so as not to impart the contagion to other fowls, she sent them off and put them in the coal pen, near the blacksmith's shop. In a short time these two chickens, contrary to their owners' expectation, recovered. Thinking that it might have been owing to the charcoal my neighbor mentioned it to a friend of hers, who resolved to test the charcoal cure the first opportunity. Shortly after an opportunity presented itself for her to make the trial. One of her Muscovy ducks was taken with the epidemic which produced the usual prostration. The lady took this fowl which could not stand up, washed off the gummy stuff which usually issues from the mouth and eyes in such cases, and gave the duck powdered charcoal, mixed with dough. The fowl was so far gone that the dough had to be forced down its throat. In less than a day it had gotten well. I do not pronounce charcoal a good remedy for cholera in fowls, but recommend experiments to test its value in fowl pharmacopoeia. I shall try it when I have an opportunity.

An old man told me, the other day, he thought cholera was produced among poultry by their swallowing live

insects, worms, or maggots, which continued to live in the stomach after they had been swallowed; and gave as a proof, his having opened fowls that had died of this disease, and having found "live things" in their craws. I cannot agree with my old friend, for my own *post mortem* examinations do not confirm his theory. Perhaps I was not careful enough in searching for the cause. Let this theory be farther examined into.

2. **HOG HAIR TO MANURE IRISH POTATOES.**—Any manure that is better than cotton seed must be good indeed. Hog hair for manuring Irish potatoes is better than cotton seed. I tried this the past summer, manuring part of my potatoes, on the same bed in the garden, with cotton seed and part with hog hair. You could tell to the very row where the former ended, and the latter began. The rows that were manured with hog hair produced larger, and greener vines, and more potatoes. As the season for killing hogs has just passed; let every one who has Irish potatoes to plant collect the hair at once, before it is scattered and lost, and put it in a corner of the garden to use in the spring. I know a wealthy planter of whom his neighbors say that his negroes would as soon think of leaving one of the hogs at the killing place as to fail to collect the hair, and carry it to the garden. Of course hair is a good manure for field as well as for garden crops.

3. **A COCK WITH FOUR SPURS.**—I have in my poultry yard a cock which is a curiosity that I never before saw or heard of. He has four distinct and perfectly formed spurs two on each leg, one immediately above the other. These spurs touch each other at the base, but are entirely distinct. The lower ones are something over an inch long, and the upper ones are a little over three quarters of an inch. The cock is of the ordinary breed of chickens, perhaps a little crossed with Shanghai, and is not yet quite two years old. I must give him a "walk" to himself, with a few hens, and see if he will propagate his variety.

4. **SCUPPERNONG METAMORPHOSIS.**—A neighbor of mine has a Scuppernong vine, which after bearing the veritable grape that it should have done for four or five years, this summer produced nothing but small, black, hard muscadines instead of white fruit. There was no muscadine vine within a quarter of a mile of it, or I might think the colored grape was the offspring of illicit amours between the Scuppernong and the Muscadine. Perhaps they concealed love-letters in pollen, and made carrier pigeons of the bees. But then, if this theory be correct, why should the fruit be so black? Why not a mulatto color? But perhaps, after all, this Scuppernong may be a "Southern vine with Northern principles;" and, partaking of the Fremont furor, have indicated its preference by changing its color. It is to be hoped that another year it may be a white man again. If it does not, my neighbor, who has no use for traitors or turn-coats, will cut it down, and no longer suffer it to cumber Southern ground.

In the same garden, a number of years ago was planted a "white blackberry" vine. In a few years the fruit of this vine became black. I accounted for this, however on the score there having been blackberry vines not far from the garden. But may there not be something in this soil of this garden which has a tendency to change white fruit to black?

5. **SHELTER FOR STOCK.**—A farmer should have shelter for all of his stock except, perhaps, hogs. I have been reminded of this by seeing the manœuvres of my calves during the present cold spell. My milk-woman and cow-boy have their fire morning and evening at the cow-pen in order to thaw their fingers when they consider them "friz." No sooner is the fire made than the calves crowd around it, disputing and pushing for precedence, like a crowd of school boys. It would be very pleasant to them



to have sheds warmed up with good fires, no doubt. But as they cannot get both, they would probably be compromised by accepting the sheds. And if I live and prosper they shall have the latter. But oh! the curse of cotton! How many comforts it cuts off from man and brute!

Horses, cows, and sheep should all have shelter. As to hogs, it is doubtful policy to give it to them, from the fact that, asleep or awake, they always have their snouts in the dirt. And when the dirt is dry, it gets into their nostrils and lungs, and gives them coughs and consumptions. Under shelter the dirt is always dry, and there is nothing like hogs to "kick up a dust." Perhaps, then, they should not have shelter. I am sorry for them, but they "had no business to be hogs." They might put up with a good thick skirt of woods, and this is protection enough from the weather for them. Or if they have sheds, the roofs should be suffered to leak a little occasionally.

But, Messrs. Editors, I must close this salmagundi letter, leaving it to you to print or burn.

J. A. TURNER.

*Turnwood, Putnam Co., Ga., 1857.*

### CULTURE OF BASKET WILLOW.

THE cultivation of Willows is not difficult nor expensive if properly understood. The first thing necessary, is to choose a proper piece of land, which should be rich and moist, but not wet. Many suppose that willows require a wet place or they will not thrive, but it is not so. If you will notice where native willows thrive best, you will find it is not in wet places, but close to the banks of some stream, where the land is always well drained, but never suffers from drouth. Consequently, we find the best land for a willow plantation is rich alluvial interval that is flowed constantly; or a mucky swamp, naturally moist, but well drained. If the land is not naturally rich, it should be plowed under as deep as possible, then harrow and fit it as you would a garden. There is no danger of doing it too well, as you have it to do but once and it will affect the crop for several years.

When the land is prepared, mark it off as you would for corn, or use a line to set by and set the cuttings in rows  $2\frac{1}{2}$  feet apart and about 1 foot apart in the rows; stick them perpendicular and leave but one or two buds above the ground. If it is green sward use an iron spindle to make a hole for them. On mellow land, it is no more work to set an acre of willows than to plant an acre of potatoes, but it is very important that it be done well, as they are not set every spring, and if badly started they will never produce a full crop.

They should be cultivated the first year so as to prevent all grass and weeds from growing among them and keep the ground loose, and the second year until they get up so as to shade the ground and be injured by working among them.

Cuttings should be procured in the winter and set as early in the spring as the ground can be prepared.

### CUTTING, BINDING, &C.

The cutting is a very important of their cultivation. It may be done as soon as the leaves are off, or at any time before the buds begin to start in the spring.

But it must be well done, they must be cut close and clean, otherwise the stools will form in bad shape and will not produce good willows. The best way to be sure of having it done well, is to cut them as close as you can—say within an inch of the old stock—and then in the spring go over them again, and cut all small ones that may have been missed, and cut down many stubs that may have been left too long. This is but little labor and will insure a good crop.

The best instrument to cut them with is a small hook, similar to a corn-cutter, with a blade two or three inches

long, and the handle about two feet; the blade should be narrow and thin similar to a jack-knife.

They should be bound in small bundles as soon as cut, and be careful to get the lower ends even. To keep them from drying up until the water is ready in the spring they may be set in a damp cellar, or set up in a solid pile on some moist piece of ground, and straw piled around them to keep them moist. As soon as it begins to be warm in the spring set them in water sufficiently deep to touch the lower ends of all and let them stand until they peel which will be in May or June in this latitude. If you have a brook running through your land, you can easily fix a place to set them, by building a dam so as to flow a level piece, and then put up poles, once in a few feet, for them to lean against, so that the sun may shine on them and the air circulate freely through them. Or in case there is not a brook convenient, a small piece of ground in some low place, can be levelled, and after making it as tight as possible, bring a stream of water into it with spouts or pipes.

### PEELING AND PREPARING FOR MARKET.

In peeling willows by hand, as they always have been peeled, it was necessary to handle them all over twice, one at a time, which made it very slow business, requiring the labor of a man and boy to peel one hundred lbs. a day; but as there is no longer a necessity of peeling them in that way, it would be needless to describe the operation. With the machine the peeling is very easily and quickly done; the operator takes a bundle of willows and feeds them into the machine as he would a bundle of grain into a threshing machine and they are passed through and come out peeled at the rate of one to two tons per day. There should be a trough or vat of water so placed that the rods will fall into it as they come out of the machine, and as often as the trough is full, rinse them in the water and spread them out to dry. When they are sufficiently dry so that they will not mildew, they may be tied in bundles and are ready for market. In binding them put some of the thick ends both ways so that the bundles will be as large at one end as at the other, and to get them tight use a strap with a buckle at one end, and draw them together as tight as possible, then tie with strong twine three or four bands to a bundle. They are very slippery things and if not well bound are liable to work loose and thus be scattered and lost. The object of having them fall into the water as they come out of the machine is to remove the slime, thus preventing them from turning color, as it very desirable to have them white.

### THE AMOUNT PRODUCED PER ACRE.

This, of course, varies, as with every other crop, according to the richness of the ground and the cultivation. The amount will range from one to three tons, and sometimes higher, even to five or six tons, but two or three tons may be considered as a fair average yield. The first year's crop will be comparatively light—depending much upon the cultivation which they receive—the second year they will produce a middling crop, and the third year a full crop, and every year thereafter.

### ENEMIES

The Willow is subject to no disease and has very few enemies. The bark and leaves are so extremely bitter that cattle will not eat them, and there is no need of fencing them in if they are in a lot where cattle run only in fall and spring, but it will not do to let cattle run among them through the summer.

There is a caterpillar similar to an apple-tree-worm, which eats their leaves, and thus stops their growing, but they are not numerous and do but very little injury. But to prevent their spreading it is well to go through the field two or three times in the course of the summer and destroy all that can be found, and by so doing but very few will make their appearance another year.



## THE MARKET.

There is no fear about finding a ready market for any quantity of willow. It can be used for such a great variety of purposes that there is no calculating the amount that will be used in this country when it can be obtained. I do not expect that it will always command the price it does, neither ought it to do so. Now that it can be peeled by machinery, at a cost not exceeding ten dollars per ton and the whole cost of raising and peeling a ton not exceeding fifteen or twenty dollars, it ought not to sell for "one hundred and fifty dollars." At present the price is even higher than that and but very few can be obtained at any price, and none except in a few of our largest cities. But if they could be supplied they would find a hungry market in every city and town in America, and the uses to which they can be applied are so numerous that the amount which would be used if they could be obtained at a reasonable rate is absolutely unlimited. But allowing that we may sometime produce enough to more than supply our own market, they would readily find a foreign market, and we may as well export willows as cotton or any other product and we ought to export a great many to pay for those we have been importing for the last twenty years.—*Farmer & Visitor*.

## HILL SIDE DITCHING IN MISSISSIPPI.

EDITORS SOUTHERN CULTIVATOR—In the *Cultivator* for October I notice an article on "Hill Side Ditching—Capt. HARDWICK'S Plan," which, with regard to the manner of arranging the instrument, is exactly what has been practiced in this part of Mississippi for some years. Yet, I think, for our lands, (which have a spongy soil six or eight inches deep with a clay subsoil entirely impenetrable by water—thus, causing the soil to become saturated and wash off) we have a plan of running our ditches which answers a better purpose than the one he suggests. We take the level to the highest point on a natural drain and start as Capt. H. does, with the short end of the level in front and run up hill. Should the hill have two drains, as represented in the sketch sent herewith we go to the top of the hill, then turning the longer end of the level in front we descend to whatever point our instrument carries us. We then direct the natural drain to whatever distance we think necessary (depending on the nature of the land) and lay off another ditch, and so on until we have finished.

After our ditches are laid off we then make them our guide rows, and instead of making our rows perfectly level we plow parallel to our ditches on the under side and cause each long row to empty its own water. All the short rows empty into the next lower ditch.

We never give our ditches more fall than will carry off the water—say from one to one and a half inches in twelve feet. Those ditches which answer best are made shallow and wide—say 3 feet wide and 4 inches deep—all the dirt having been rolled out with hoes on the lower side of the ditch.

Where the hill sides slope gradually we allow a greater distance between the ditches, and our object in these ditches is not so much to carry off water as to prevent washes. I have seen Capt. H.'s plan tried here, but it don't work so very well and has been altogether discarded here.

I herewith send you a rough sketch of the plan alluded to that you may understand it more easily; as I am more of a practical farmer than a writer on agriculture. If you think you can make anything of this, by any corrections you may think fit, which will benefit your readers, do so; if not, throw it under the table.

W. H. R.

Canton, Miss., Oct., 1856.

## PLOWS FOR THE SOUTH, &amp;c.

EDITORS SOUTHERN CULTIVATOR—You may remember my writing to you last fall for information respecting the best Plows adapted to light sandy soils. You referred me to Dr. PHILIPS, of Mississippi. I wrote him, and his letter in reply being very satisfactory and instructive, I enclose it for publication, in your valuable journal, hoping its perusal by your subscribers will prove valuable to them.

Respectfully. W. J. KURTZ.

Laurens, Co., Jan., 1857.

EDWARDS, Miss., Dec. 5, 1856.

DR. W. J. KURTZ—Really and sincerely, sir, do I receive with great pleasure such letters as yours of the 16th. This day read and this night I reply. I am pleased for two or more reasons:—1st, that my friends deem me that worthy; 2d, when I can be of service. I have in all probability, been at more expense and more trouble in testing plows than any private farmer, North or South, and I trust not without advantage to my fellows, to my country, and not least to the deserving mechanic. This class of our population is not sufficiently prized, they are the planter's strong aid; without them we could not possibly make our labor remunerative, when prices droop. I admit, too many of them are governed entirely by the sordid motive, but the few who follow their calling from a desire to give satisfaction and arrive at excellence should give respect even to the indifferent.

From the character of your land, I would judge that you would want a mould board to set at a larger angle to the bar than I would, with a little less fullness in the breast and a little more curve. Our planters as well as our mechanics are too much inclined to have one plow for all work. If you will reflect on this matter, you will at once see a stiff soil requires more force to break up adhesion and less curve to turn, for it only needs to be turned very little over a perpendicular, whereas lighter soils need comparatively no force to break up adhesion, but more to turn further so as to make a clean turn. I would, therefore, advise you to apply to T. E. E. BRINLEY, Simpsonville, Ky., to make a plow for light lands. I regard him to be the best plow-maker I now know. His prices are:—No. 1½, 2 horse, \$8; No. 1, 1 horse, \$6.50 to \$7; Double Shovels \$7, excellent for cultivating; Cultivator \$7, a 3 small shovel implement, very nice for cultivating and stirring the earth.

I know his prices seem high, but I know they are cheaper than any 5 or 6 plows I ever used. I have used them for three crops already, and they will do me for five more, at least double that of the cheap plows. Besides, being steel, when worn out the steel is valuable for laying, &c.

The Mississippi Scraper is hard, very hard to describe, I have not the price. They are made of a slab of iron about 12 inches wide and some 16 long, and shaped as a long diamond; the side fastened to the plow is 2 inches higher than the outer edge, so as when the edge next to cotton is on the bed the outer edge hugs the bed or dips into it, and when set on level land the handles and chip are not perpendicular. The bottom edge is sharp and kept so, so as to shave off earth, grass and weeds. They are made too light and not long enough. When you are ready, I will take great pleasure in having one made for you exactly right, by which you can have others made.

Let me say this: be not discouraged on trial, put to the Scraper the most skillful hand and give \$1 when he shaves a bed to stand end to end, leaving about ¼ to 1 inch on each side of the cotton only, not touched. I have 10, perhaps 20 hands that can average 2 to 3 acres, behind good scraping, in putting cotton to a perfect position for first working—not to a stand, but in bunches.

The cultivator I prefer is either the double shovel, moulds about 6 inches wide, twisted like a turn plow, or three shovels to a light stock, small shovels.

I always count upon a Doctor making a good planter or farmer if he will devote himself to it. Your beginning is good. Levy contributions, "black mail" on every source to get information, if meanness characterize the possessor, let him go and try somewhere else.

My ambition is to be useful. Whenever and wherever I can serve, you oblige me by commanding the services of

Yours truly, M. W. PHILIPS.

#### ANIMAL MANURES---SUBSOILING.

EDITORS SOUTHERN CULTIVATOR—"As the grave yard is located in a grove of trees, the roots of which, we found, had left their usual horizontal position near the surface of the ground and had gone down perpendicularly to the bottoms of these two old graves where they had rotted for unknown years on the remains, perchance, of some sturdy yeoman or maiden fair."

The above extract is from Mr. J. VAN BUREN's article in the December [1856] number of the *Southern Cultivator*, in which I do not think he has given the whole cause of the "roots leaving their horizontal position near the surface of the ground," and going to the bottom of the graves. They may have gone, in part, in search of the "lamented dead," but the main cause was that the earth where they went down had been spaded and pulverized, or, in other words, *subsoiled*. His discovery, therefore, is not only in favor of depositing dead animals as food for fruit trees, but is also a powerful argument in favor of subsoiling. No one supposes that the roots of those trees would have left their horizontal position and went down to the remains of the departed, if the ground had been as hard there as elsewhere. Just so in corn and cotton culture, if we plow deep we give the roots of plants liberty to hide themselves from the scorching sun and roam at pleasure and with ease in search of the food which they need.

Yours, &c., G. D. HARMON.

Utica, Miss., Jan., 1857.

#### LEVEL CULTURE---HORIZONTALIZING, &c.

EDITORS SOUTHERN CULTIVATOR—I have just had the pleasure to read Col. H. J. CANNON's communication in the January number of your invaluable journal, and as he has had much to do with me in his remarks, and in some instances seems to misunderstand me, I feel called upon to set myself right. I read the Col.'s article with no ordinary pleasure, and feel myself much benefitted by its perusal.

To keep land from washing has long been my favorite study, feeling as I did and do and shall, that it is the fundamental ground work of all Agricultural improvement. And any system from whatever quarter, which had for its object that result, has ever received from me the most respectful consideration. And I am proud that this subject occupies such a prominent position in this department of "Plantation Economy" in your paper.

Col. CANNON's system of "leveling" land seems to be identical with my own, the only difference being found in the fact that I find it necessary to locate in addition to "leveling," hill side ditches.

And if Col. C. had read my article as carefully as I did his, he would have found that my ditches gave me no more "short rows" and turns than he has without them, as my rows cross the ditches as they come to them, the plows, in cultivating the crop crossing them also, paying no attention whatever to them—the hoe hands being re-

quired to clean out any dirt that the plows may leave in the ditches.

My system of "leveling" land being the same as Col. CANNON's, and he having saved his land by that system, and I having failed, it follows, therefore, that something more than leveling is required in this country, and that something is nothing more nor less than hill side ditching; and here the controversy between us on this point ends. Still, however, I intend to run on a *perfect level every foot of every row* in one field in which there is no ditches, and report the result; and that report, I am satisfied will, be *washed, badly washed!!*—would have been saved by ditches. And here permit me to say to those who have contemplated ditching and "leveling," not to be deterred by Col. CANNON's success in the "cleaner corners of Tennessee," for his system will just as certainly fail in this country as that the thermometer, in Hinds county, this morning, was at 14° Fah.

But the most remarkable feature of Col. C.'s article, to my mind, is the fact that he "regrets that I located him in the mountains," as if that word carried with it something reproachful.

Now, if Col. C. thinks that I have done him and his country injustice because, to illustrate an agricultural truth, I said he cultivated the stiff lands of Tennessee, similar to that in the mountains, what sort of justice does he suppose his expression of unutterable contempt for mountain life has done his brethren of his own State, who live in the fertile valleys, amongst the mountains, which is to be found in every division of the State—East, Middle and West. Last fall was a year ago, I was in every division of Tennessee, and I found the people quite as intelligent and the lands quite as good for the purposes for which it was used, in Middle Tennessee and in the Eastern portion of the State as that in Col. C.'s "cleaner corner."

At "Mont Vale Springs," in the Eastern portion of the State, 28 miles from Knoxville, in the mountains of Blount county, I was cured of that "demon of human suffering," Dyspepsia, and I shall always, I trust, look back to that spot—to the "sparkling waters of Mont Vale"—to the mountain scenery that around it everywhere meets the eye, and to the pure invigorating mountain air, which bears up the drooping spirit, with the fondest recollections. I shall always remember the feelings inspired when travelling on the cars from Chattanooga to Nashville. The train was thundering along the railway with lightning speed, and, looking out the eye rested upon mountain rising in majestic grandeur above mountain, and in a line about the same distance from the summit, were huge craggy rocks, thrown wildly upon every mountain, presenting the appearance of innumerable white villages in the distance.

Unlike Col. CANNON, to my mind that word "Mountain," is associated with ideas solemn and sublime. It brings to the mind salutary and consolatory reflection. Our Savior often retired to the mountains and prayed where no eye but his Father's could see. He was "transfigured upon a high mountain," in the presence of Peter, James and John. He wept over Jerusalem, the Holy City of God, which was located in the mountain, or "surrounded by mountains." He atoned for the sins of the world upon the mountain. Our Heavenly Father selected a mountain for the Ark and the first family of the new world to rest upon. Moses, the man of God was interred upon a mountain. HOMER, the immortal poet, sung in the most mountainous country in the world. The mountains have produced the world's great men. Still Col. CANNON had as soon "take a tree" as to go to a mountain.

But this article is already too long. Adieu.

Yours, &c.,

G. D. HARMON.

Utica, Miss., 1857.

## CHINESE SUGAR CANE EXPERIMENT.

THE following (says the *Germantown Telegraph*) is one of the fairest tests we have yet seen with the Chinese Sugar Cane. Indeed it is less than a fair test, as it was made, as will be seen, under disadvantages; but the result was the same as with others. Mr. Bulkley's horse eat the leaves and stalks greedily. Cows cannot eat at portions of the stalks unless they are chopped in small pieces, on account of their inability to bite them in two. Hogs are known to be fond of the stalks. A gentleman from Massachusetts, informed us a few days ago, that as provender for cattle, the fodder—stalks and leaves—promotes the secretion of milk—increases the quantity and quality of butter—and in fat cattle gives a fine flavor to the beef! At any rate, and under all circumstances, the plant may be regarded as an acquisition of no mean importance to the country; and as there can be little or no speculation in the seed, there is not the least motive in any one to attempt to mislead the public. Mr. Bulkley's communication, we repeat, is valuable. We copy from the *Scientific American*:

## EXPERIMENTS WITH THE CHINESE SUGAR MILLET.

*Messrs. Editors*.—Knowing that you take a deep interest in anything which promises to be valuable for our country, I send you the result of an experiment which I made with the Chinese Sugar Millet—*Sorghum Saccharatum*.

Having received from the Patent Office a paper of seed, I planted it as a matter of curiosity, though not having the least confidence that it would prove to be worth anything. The seeds and stalks so nearly resembled our common broom corn as to make me feel quite sure that they were these.

I planted it in hills, about 2½ feet apart, with 6 to 10 seeds in a hill. It was greatly neglected during its growth, from an impression of its worthlessness.

Some time in August, there was a chance frost which nearly terminated its growth, and, in fact, completely destroyed some sweet corn growing in the same garden. The millet was just putting forth its seed stalk, and the seed was consequently, all destroyed. The stalks, however, were left standing until some time in October, when—still supposing them to be worthless—I had them cut and thrown into piles, to get them out of the way.

After they had lain upon the ground for some time I took a handful of the stalks and gave them to my horse, who eat them greedily—eating both leaves and stalks.

About this time, I saw a statement in the papers that some person had made some molasses from this plant. This led me to make the following experiment with mine, although I had reason to suppose that the frost and the exposure on the ground would have destroyed any good qualities which it might have originally possessed.

I took some of the canes and cut them into pieces about three inches long, when they were readily ground through one of Hickok's Portable Cider Mills, with cast iron grinders; and then pressed with the powerful pressers attached to the mill. The quantity ground was about half a bushel of the pieces, and the juice expressed was about seven quarts. This juice, when evaporated, made one quart of molasses, that is pronounced, by those who have tasted of it, to be superior to the New Orleans molasses, and some say, equal to the flavor of the maple syrup. It is, at all events, good molasses.

From an estimate made, I judged that the square rod of ground planted—if the canes had all been used—would

have produced four gallons of molasses, or at the rate of 640 gallons per acre. Such a crop would have proved valuable the last year, since sugar and molasses are so high.

There is little doubt in my mind that any person who has a small piece of land may manufacture his own molasses and perhaps sugar.

I cultivated on so small a scale as not to warrant the expense of erecting the rollers for expressing the juice from the cane; they may be cut in a straw cutter, and ground in one of Hickok's Portable Cider Mills, with such facility that two men could obtain five or six barrels of the juice per day by hand, and proportionally more if horse or other power is used. This juice could be cheaply boiled in one of the evaporators with which you are acquainted, without burning the syrup or wasting any fuel.

Besides the molasses obtained from the stalks, the leaves will make good forage, the seed will nearly equal that of a crop of corn or oats, and the tops will make brooms.

With all these advantages, may not the Sugar Millet prove of great value to the community? Every family in the country can make their own sugar and molasses, while at the same time, the seed, forage, and brush for making brooms will pay all the expenses of raising the crop.

Those having seed to spare, will do well to make it public, that more experiments may be made during the next summer.

H. G. BULKLEY.

*Kalamazoo, Mich., 1857.*

## COTTON---CIRCUMSTANCES ALTER CASES.

EDITORS SOUTHERN CULTIVATOR.—In reading your journal (and I love to read it) I have sometimes been surprised to see what uniform rules, some of its contributors lay down for the preparation of land in which to plant cotton, without considering the old and important adage that "circumstances alter cases." This adage must not be overlooked by farmers, if they would be successful in their avocation, plant what they may; and the disregarding of which has often caused failures, discouragements and loss. True, there are things in the management of cotton as well as other products that will apply wherever it is cultivated, but no rule for preparing the land will apply uniformly, with equal success, all over our vast cotton growing region with its varied qualities and states of soil, that is to say: that some kinds of land need more preparation than other kinds. Planters must learn to regulate their operations according to what they are operating upon. Some planters contend that it is useless to break up cotton land before bedding. Yea, that it is best not to do it.

This may do on certain kinds of land where the soil is inclined to be loose, sandy and mellow, but where the soil is close and stiff, cotton will always grow better and yield a more remunerative crop if the land is broken thoroughly and deep. This theory is often made to look very plausible, and may perhaps be correct so far as its advocates own farm or section of country is concerned, and hence some person living in another part of the country and cultivating a different kind of soil, embraces it and tries it without remembering that "circumstances alter cases," and finds that its practical effects don't turn out so well with him; but forgetting to call into question the false theory which he has embraced, he attributes his failure to unfavorable seasons, bad kind of seed or some other accident, fails to think that "circumstances alter cases," and pursues the imbibed theory and runs the round of disappointment again.

The easiest and the cheapest way in the outset is often the hardest and most expensive in the end. Not only in

the preparation of land before planting, but also in arranging the rows in planting and in cultivating the crop throughout it is needful to remember that "circumstances alter cases."

The distance of the rows apart should be proportioned to the quality of the soil. Land that will produce with a fair ordinary season from 15 to 20 bushels of corn per acre should not be wider in the rows than from  $2\frac{1}{2}$  to 3 feet, when planted in cotton; and  $3\frac{1}{2}$  feet is generally wide enough for the best of upland. In this estimate of distance between rows I speak only of those cotton growing regions which have come under my experience and observations, to wit: the middle and upper portions of Carolina and Georgia. Farmers are often too hasty to embrace new theories and hazard their success, because they are easy and have succeeded well somewhere and with some persons; but farmers should always consider their whereabouts and circumstances, for "circumstances do alter cases."

These are thoughts, Messrs. Editors, which have suggested themselves to my mind from reading the *Cultivator*, and if you deem them worthy of notice you may give them a place in your paper; if not, I am still

Yours, &c., CHEROKEE.

Cave Spring, Ga., 1857.

### THE CULTURE OF COTTON,

An Essay delivered before the Beech Island (S. C.) Farmers' Club January, 1857.

BY H. L. MAYSON, ESQ.

MR. CHAIRMAN—The subject for discussion to-day—the culture of Cotton—is one of the greatest importance to every Southern man, inasmuch as from Cotton we derive our principal wealth, as well as our political existence. There is no other crop that we can raise by which we can acquire the same amount of wealth, or by which we can successfully keep in check the conflicting party strife of our country. Cotton has become indispensable to the happiness and comfort of mankind; and should the South abandon its culture for five years it would produce such a revolution in the Manufacturing and Commercial world as was never before seen. Thousands of operatives in factories that now find employment at least sufficient to procure their daily bread, would be thrown out and forced to find some other means to obtain a living, and in too many cases would fail to obtain work, and thus be reduced to starvation or crime; while millions of money now profitably employed in its manufacture would become useless, and factory buildings, reared at the cost of thousands, stand idle or be left to decay and ruin, and the civilized world reduced to an extreme never before known for an article of cheap clothing; while misery, want and desolation would spread over the entire globe.

But, sir, all this time the South could be free from any of these evils, by simply raising merely a sufficiency for her own use, and having that manufactured at home, and allowing none to be exported, either to the North or Europe.

But, sir, as this discussion is only, or at least particularly, intended to benefit the members of this Club, I will confine the remainder of my remarks to the preparation of the soil and the after-culture of this plant on such land as is generally cultivated by the members of this Club, namely: light sandy soil. 1st, the preparation of the land: I incline to the opinion that an 8 inch shovel is the best plow to use in laying off with; the rows should be from 30 to 36 inches wide; this should be done if possible, in January, or, at farthest, by the 15th of February; after your rows are run off put in your manure, and follow up with an Allen Plow, throwing two furrows to each row; you can then let them remain till about the middle

of March, when you should finish out the bed with the same plow (the Allen). About the 1st of April commence planting; open your beds with a small Tongue Plow; if the land is not too dry, roll your seed and sow, covering with a board or harrow; as soon as your cotton is well up, run round with a three toothed harrow and follow after with the hoe, chopping out—this is a very important working and should be well done, for if well done and all the young grass removed you will afterwards have but little trouble in keeping your crop clean. The second working with the "Sweep," following with the hoe and bringing to a stand, and also replant missing hills—this work should be done carefully, as the plant is very delicate at that age and liable to the "sore shin" by being bruised with the hoe. The balance of the culture may be done with the hoe and sweep. Seventeen acres is sufficient for the hoe.

I have no experience with manures, except stable or barn-yard—do not know how guano and the other foreign manures will answer.

I should have said, in the proper place, that if the land intended for planting has been lying out or stubble, it will be necessary to first break it well and thoroughly. Cotton does not require deep culture, nor does it want much dirt thrown to it, as the one injure its roots, and the other often destroys the stand when young, and if farther advanced injures the bottom forms.

### A PLEA FOR THE CHINAS.

EDITORS SOUTHERN CULTIVATOR—Startle not, dear reader, I am not going to inflict upon you a dissertation on those long legged things that have afforded Mr. BURNHAM so rich a theme for the display of his wit(?), but I propose to say a word in the defence of the much abused Pride of India, or "China Tree," (*Melia Azedarach*) The Cochins can do their own crowing.

I am apprised that this tree does not rank as highly as it formerly did, as an ornament for the grove, and I am equally certain that no very great taste is displayed when we notice those to whom preference has been given over the Chinas. A gentleman is settling a new place—he must have shade trees, and these must be maple, beech, elm or water oak, of course no other will do, because it's not the fashion. Well, he pays a man a pretty good price to put them out for him, and in six or seven years behold his grove. Do they resemble the trees formed by nature? Do you see that beautiful taper from the root to the top? or do you not rather see a diseased trunk, surmounted by an unsightly knot, from which spring out many irregular branches, giving the whole thing the appearance of a tow-headed boy, whose hair has not been combed from his infancy.

To have a fine grove, you must plant the whole tree, no matter whether large or small; take it up and set it out properly, and it will be sure to live, but put the whole tree.

But I started to say a word in defence of the Chinas. The great objection urged against this tree is its filthiness. If this is indeed an objection, I cannot see why it does not apply with equal force to all trees, for all must shed their leaves, and while others drop theirs gradually, the China is sooner through, and hence your cleaning up sooner done. It should be remembered that every leaf, stalk and berry that falls from this tree is a valuable manure for the garden. The China is never infested with caterpillars and other noxious insects, an advantage that can be claimed for no other tree. But the great advantage of this over other trees is its rapid growth. From the seed in a few years you have a fine, and if properly managed, I would add, a beautiful tree.

A tree, like a child, will need attention from the birth till it can care for itself. It must have proper pruning, and this must be done at the proper time. But if allowed to attain size and age, as is common in the cities, and suffered to be trimmed by a rough negro with a dull axe, you may expect to see just what you do see—a mangled thing that should be cut down and used as fire wood. Let the matter be well considered, and I feel well satisfied this once popular tree will again find its way around our dwellings.

Near Augusta, 1857.

V. L.

#### SHADE TREES ABOUT DWELLINGS.

EDITORS SOUTHERN CULTIVATOR.—My views in regard to the effect of shade trees around dwellings coincide with yours—that, to a certain extent, they do engender sickness—but this must depend in a measure upon the locality of the place, as well as the nature of the tree producing the shade. A friend residing in a neighboring county had a large number of the barren Mulberry growing in his yard, casting so dense a shade that the rays of the sun never reached the ground. I called his attention to the fact, and advised him to remove every alternate one, but he chose to let them stand; the consequence was he lost his wife and his only three children, and came very nigh losing own life. Now, whether this is to be attributed to the dampness caused by the shade or not, I am not prepared to say; but my impression certainly bears in that direction. I may be mistaken in my notion, but it seems to me that the leaf of the Mulberry retains moisture longer and is more difficult of decomposition than the leaf of any other tree, for which reason I have always looked upon it as a species of *Upas*, and have never allowed the woodman to spare it on my premises. On a high, sandy, elevation, I cannot think that shade would be so apt to produce sickness as on a low place, but in either case the trees should not be suffered to stand so closely as to prevent the sun from drying the ground, and again they should be trimmed sufficiently high to permit a free circulation of air. I believe, too, that if the housewife would be careful in having all fallen leaves immediately removed to the manure pit before they commence decaying, a very great cause of sickness would be removed with them. I would also recommend a similar disposition to be made of all slops, dead chickens, &c. This includes a part of my rural management, and I think the bakers will attest that my family has enjoyed a goodly share of health.

V. L.

Cedar Green, near Augusta, 1857.

#### TO CURE FOOT-EVIL AND SCRATCHES IN HORSES.

EDITORS SOUTHERN CULTIVATOR.—A contributor in the January number gave a prescription for the cure of the "Foot-Evil," a disease which I am well aware has always been dreaded, and looked upon as incurable after it has "*run round*" the hoof. I have seen it treated very barbarously with hot soft soap, hot grease, tar, &c., and as I had some knowledge of the power of medicines, I thought something better could be applied.

My plan of cure is simply this: No matter at what stage of the disease you may meet with it, have the parts well washed and thoroughly cleaned; then apply pure Nitric Acid with a small rag mop on a stick, and be sure that the acid touches every part of the sore surface. I have used the acid diluted one-half, and even one part to three of water, and it was quite as efficient. I could detail many cases, but it is needless; all that is required is a trial. It changes the color of the hair and the sore flesh. It seldom needs repeating, if well put on. Turn the animal in a dry lot, and have him watered with a bucket, or in a trough.

I have seen bad cases of "*Big Head*," cured with Nitric Acid, by applying it continuously to *one spot* on the face, so as to make an issue, or artificial ulcer. It is a sudden and certain remedy for Scratches.

Respectfully yours, &c.

A. R. K.

Concordia Parish, La., Feb. 3, 1857.

#### METEOROLOGY FOR FARMERS---LETTER from Lieut. Maury.

OBSERVATORY, Washington, D. C., }  
January 23rd, 1847. }

EDITORS SOUTHERN CULTIVATOR.—The great snow storm of 1857 commenced here about midnight of the 17th. Where did it begin? which way and how fast did it travel, and where did it end?

These with other circumstances connected with it, are interesting points of inquiry; and if those of your readers who keep meteorological journals will send me an extract from them for a week commencing January 14th; and if those who do not keep journals will report when the storm began and ended with them, the amount of snow that fell, and the way the wind blew, I shall have materials enough to go into the investigation.

Will you do me the favor to say that I will be much obliged to any of your readers who will have the kindness to give me such information through the post office.

Respectfully, &c.,

M. F. MAURY,

#### THE MISFORTUNES OF JAMAICA.

THE property holders of Jamaica are moving to effect some change in their social and political relations that will enable them to cultivate the earth with more success than they can at present. The *Falmouth Post* of a recent date, has the following:

Five gentlemen who have resided for many years in Jamaica, and desire a change in its social and political condition, having addressed a letter to M. Labouchere, the Secretary of State for the Colonies, directing his attention to certain suggestions which they offer, with the object in view of arresting "the wide-spread and annually increasing distress which overshadows the entire population, and has sunk a large portion of its inhabitants into actual destitution." The gentlemen whose names are attached to the letter state that the condition of the colony is at the lowest possible point, short of universal bankruptcy and ruin—that real estate has no market value—that dwelling houses are gradually decaying, and money can with difficulty be raised, even in return for personal property—that most of the necessary articles for consumption are imported from the United States, while the natural products are neglected—and that the money capital of the country is drained, in the absence of any exchange of trade. They add that the industrial condition of the inhabitants is at the lowest ebb, and that their moral and social condition is not a whit more elevated.

LIQUID MANURES.—One cow will void every month about 1000 pounds of urine, containing seventy-five lbs. of solid matter, or guano. Partially rotten pasture turf, thrown daily upon the stable floor, is an excellent absorbent of this valuable manure. Human urine mixed with sulphuric acid in the proportion of one part of the latter to twenty parts of the former, and absorbed in a compact heap of pasture swards, and the whole applied as a top-dressing for wheat, will produce a great increase of crop. It has been calculated by chemists that in every pound of urine there are the elements of a pint of wheat.—*Ohio Valley Farmer*.



## A HINT TO ORCHARDISTS.

*Mr. Editor:*—Allow me to present you with a specimen of the Lancaster Greening and New York Pippin Apples, with the compliments of James H. Bostwick, Esq., of Jefferson county, Ga., from whose orchard they were taken. Mr. Bostwick has an Apple orchard containing one hundred and twelve trees, of eighteen varieties, planted in 1850, commenced bearing in 1852. In '55 and '56 he had an abundance of apples, some of which weighed a pound, of as rich flavor as any northern, eastern or western, and fairer were never seen—to both of which assertions you can testify, after you have submitted those now presented to the usual ordeal.

During my journeyings through Burke and Jefferson counties, I have wondered why so little attention has been given by the citizens to the culture of so great a luxury.

My opinion was, that the soil and climate were as genial as those of New Jersey, where is grown the most delicious fruit, of the greatest varieties, in profuse abundance. To all suggestions I made in relation to this matter, I was met with that common phrase: "It can't be done;" but it has been done by Mr. Bostwick, and satisfactorily done; and he gives it as his opinion, based upon actual experiment, that Apples, Peaches, &c., can be produced upon Jefferson county soil, that will compare favorably with that produced in any State in the Union.

He has also a small Peach orchard which produced, during the two past years, the finest fruit, in lavish quantities; and I regret that I have no specimen to present with the apples.

These orchards have produced large crops of cotton and potatoes, every year since the trees were set; and he says the trees have been materially improved by the operation.

His hogs are fattened upon the fruit, and good results from their rooting among the roots of the young trees.

Now, I imagine the reason why so many have failed in their attempts at orcharding lies in the fact that when the trees were set, they supposed their work done. That was a mistaken conclusion; for manuring, plowing and crossing, if you please, are as essential to the thrift of fruit trees, and the perfection of their fruit, as to that of cotton, corn, or any other product. Yours truly,

A. SHERMAN,  
[in *Constitutionalist*.]

## SOUTHERN APPLES---MAKING CIDER, &amp;c.

EDITORS SOUTHERN CULTIVATOR—You ask my opinion in regard to the "best cider apple?" I feel prepared, after giving it a fair test, to pronounce Hughes' Virginia Crab as standing a full head and shoulders above all other cider apples cultivated in the United States, and the Harrison Long-Stem next to it.

In my first practice in Pomology I followed Kendrick as my guide, and, of course, commenced an orchard out of Northern apples, including the Harrison Apple for cider. I failed utterly, all my winter apples ripening and falling off the trees in autumn. Pell's far-famed "Newtown Pippin" alone has cost me some thousands of grafts to re-top them with good Southern varieties of winter fruit.

I have for years been positive in the opinion that South of Maryland we must have a Pomology of our own, so far as apples are concerned.

The labors of the last 8 years of my life have been devoted to the exemplification of the above opinion, and the result already is that my orchard now contains more than a dozen varieties of Winter Apples—all Southern Seedlings—which, in my opinion, cannot be equalled in point of fine quality by the same number of varieties of Apples grown at the North. As regards the Newton Pippin, I

can best it with Camak's Winter Sweet. I, however, can take but little credit to myself for anything I have done in advancing the science of Pomology, as I have worked as noiseless as a mole, and on my own ground. It is to Mr. J. VAN BUREN that the South is more indebted than to any other living individual for giving an impetus to Pomology by collecting, publishing and disseminating all the varieties of Southern Seedling Apples of superior quality heretofore discovered.

You need have no fears in regard to Hughes' Crab succeeding as far south as Augusta. I met with it in the greatest perfection on a gentleman's farm in Coweta county, Ga. The gentleman did not know any use he could put them to, as neither his negroes or hogs would eat them!

You would probably like to know my process for making fine cider. It is as follows:

Let the crabs be thoroughly ripe; then grind well and press close, and from the press put the cider in open-mouthed barrels, and to every 60 gallons mix in 5 pounds of maple coal-dust, and also two dozen eggs, and beat up shells and all. If the weather is very cold, it will take from 12 to 15 days before the coal will be precipitated; if mild, not half that time. The next process is to press it through a large and deep hopper filled with the finest of sand and also 20 ply of the very finest flannel, having its vent, or outlet in a grooved plank, to catch it as it issues from the hopper.

The coal takes up all acidity, and it comes from the hopper in a stream about the size of a rye straw and as pure as the morning dew.

Another and more speedy way to purify it with the coal and eggs is, after it is mixed to put it in a large copper boiler, and so soon as it boils to skim it and pass it through the hopper.

But cider made by the latter process is not so fine as the former, as it loses much of its aroma which passes off in boiling. Yours truly, S. McDOWELL.

Franklin, Macon Co., N. C.

MILKING.—The *Massachusetts Ploughman* says:—The milker should sit close to the cow, and should endeavor by all means to be on good terms with her; and if he scolds and kicks, she will be quite likely to return the compliment. Sit close, and let the left arm be in contact with the leg of the cow; then she cannot set her foot into the pail if she is disposed to do it. She cannot kick while her leg is in contact with your left arm, for a blow requires space between the agent and the object. The best milker is he who is quickest, for there will be a flow in less than a minute from the commencement of the process. Take advantage of this, and not let the milk flow back again. Milk out all that the cow will give, for the last of the milk, or the strippings, is worth more than four times as much for butter as the milk that first comes.

STRENGTH OF SLAVERY.—A writer in the *Augusta Chronicle & Sentinel* says:

"The real strength of slavery lies in its adaptation to the relative capacity of the two races, in the cheerful submission of the slave, in the dependence of the civilized world on its productions, in the favorable convictions of all who have any practical knowledge of it, in the instinctive repugnance of the whites to equality with blacks, and in the social and political ligaments which bind together all classes at the South. Thus fortified, it needs no help from the officious schemers who now afflict the land."





# The Southern Cultivator.

AUGUSTA, GA:

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## ANSWERS TO CORRESPONDENTS.

**ROTTING OF APPLES.**—W. M. L.—Please give us a particular description of the disease that affects your Apples, and let us know whether you cultivate Northern or Southern varieties. All the Southern kinds that we have tried, and a few of the early Northern varieties succeed admirably with us at "Fruitland." Late Northern Apples are of no value in the South.

**NO ADDRESS.**—Dr. CHAS. N. H.—It is impossible for us to comply with your request, as you furnish no post-office, or other indication of your locality. Correspondents are often too negligent in this particular.

**ARKANSAS GRAPESEEDS.**—Mrs. R. J. G.—Many thanks for your kindness. We will plant the seed sent.

**CONCRETE HOUSES.**—C. D. M.—Our concrete house is nearly complete, and we will shortly publish drawings, description, &c., as you desire.

**PLANTING FRUIT TREES, &c.**—G. W. L. F.—Your communication is on file, and we shall reply to it at length hereafter.

**SAMPLE NUMBERS.**—N. C.—The desired numbers were sent per mail, and we shall be greatly obliged by your kind efforts.

**OSIER WILLOWS.**—W. B. H.—We answered your letter per mail, and you will find an article in present number, giving much information on the subject.

**CUTTING SUGAR CANE.**—M. R. S.—The Chinese Sugar Cane will bear cutting 4 or 5 times during the season, like any other Millet. If for Hay, let it tassel—if for green forage, cut at any stage, and sprinkle freely with salt before feeding out.

**WARTS ON FOWLS.**—J. G.—An intelligent and experienced correspondent (A. R. K.) writes us from Concordia Parish, La., as follows:—"Seeing in the January number an inquiry from a lady correspondent, Mrs. M. B. W., of Mobile, Ala., as to the best cure for warts, and although the query was answered by you, still I think the following a more certain cure than those you proposed, so I concluded to give her and your other readers the benefit of my experience, and not only mine but of nearly every person of my acquaintance near here. First, pare off the wart or warts with a sharp knife or scissors, and apply immediately the common Spirits of Turpentine to the place. It may be necessary to repeat the operation, but it never has so happened with me. It has been applied to the eyelids without any injury. I never have known it to fail of effecting a speedy cure.

**WEIGHTS AND MEASURES.**—W. P.—We have publish-

ed the following before, but repeat it for the benefit of yourself and other new subscribers.

Of wheat, sixty pounds to the bushel.  
Of shelled corn, fifty-six pounds.  
Of corn, on the cob, seventy pounds.  
Of oats, thirty-five pounds.  
Of barley, forty eight pounds.  
Of potatoes, sixty pounds.  
Of beans, sixty pounds.  
Of bran, twenty pounds.  
Of clover seed, sixty pounds.  
Of timothy seed, forty-five pounds.  
Of flax seed, fifty-six pounds.  
Of hemp seed, forty-four pounds.  
Of buckwheat, forty-two pounds.  
Of blue grass seed, fourteen pounds.  
Of castor beans, forty-six pounds.

**DWARF PEARS.**—H.—Success with dwarfs is certain if you will only select the proper varieties, plant the trees right, and give them high culture afterwards. A correspondent, (G. W. F.) in South Western Georgia, writes us on this subject:—"I have extensive collections of almost every kind of fruit here in my own grounds. Of Pears, over 150 varieties, mostly on the quince. The trees grow well and look very thrifty and vigorous. They would have yielded me a good deal of fruit last season but for late frosts. As it was, I had a good many fine Pears, although my trees are yet very young."

**CHINESE SUGAR CANE CULTURE.**—E. P.—You will find directions in our January number, but as the season for the earliest planting is now at hand, we will repeat, in substance. The Chinese Sugar Cane seed, if planted in March, anywhere South of the latitude of Augusta, will ripen two crops of seed from the one planting; *i. e.* after the first crop matures, and the cane is cut, the plant will "rattoon" or shoot out from the ground and ripen another crop of seed before frost. A good single crop may be made in the same latitude, by planting any time before the middle of June—though we advise our readers to get their seed in the ground as soon as possible after corn planting. In regard to culture, Dr. ROBT. BATTEY remarks: "While the seed remains in the hands of the few, and commands a price too high to permit a waste, it should be planted for one season with good distance, that the seed crop as well as the cane may attain their highest state of development. I would recommend that the rows should be three or even four feet apart, and a distance of, say two feet, given in the row, dropping one or two seed in a place. Let the ground be well cultivated, as for corn, and the shoots or suckers which spring up from the root, be all permitted to grow. A small portion of the crop should be reserved for seed, and permitted to stand until fully matured and dry. It would be well to limit the canes in the seed patch to one. By all means permit no Broom-corn, Dourah-corn, or other plants of the same family, to grow near your Cane. It readily intermixes with these varieties, and effectually ruins your seed for the production of syrup. For the same reason, great care should be observed in procuring reliable seed, as well as in keeping them so.

"After the first season, when a full supply of seed shall have been secured, a better paying syrup crop may be grown, by closer planting. The space between the rows may well be narrowed down to three feet, and the seed put in, say two or three every six inches. When well up, the stoutest and healthiest plants should alone be allowed to stand. The cane, when very young, presents so much the appearance of grass, that an advantage may perhaps be gained, by dropping some other seed with the cane that the latter may be more readily distinguished. This, of course, should be drawn out with the superfluous cane plants. When of sufficient size, the plants should be

suckered down to one cane for each root. In other respects, the successful grower of corn will not be at a loss in the cultivation of this plant. I have found a suitable time for planting to be immediately after the corn crop, although excellent results have been obtained by planting as late as the 15th of May, in Cherokee Georgia. It will doubtless be desirable to make several successive plantings that they may mature gradually, and so give more time for harvesting the crop. The land, in my opinion, should be prepared in all respects as for corn."

Those wishing more special information in regard to harvesting, crushing the stalks, boiling the syrup, &c., can obtain it by enclosing us a postage stamp for a copy of our pamphlet on the subject.

**GROUND PEAS OR PINDERS.**—A SUBSCRIBER.—We have, in former volumes, published much on the culture of Pinders; but, for the benefit of new subscribers, we give the following from WHITE'S *"Gardening for the South"*:

This plant is likewise known as the ground nut, pindar and pea nut. Although not exactly belonging to the kitchen garden, a few hills should be allowed a place for the sake of the little folks, and indeed, when baked, few of the older members of the family will find them unpalatable.

The ground pea was originally brought from Africa. It is also said to be a native of Mexico. This plant is a trailing annual, one of the few which ripens seed under ground. The yellow pea shaped flower springs from the part of the stem near the surface of the earth, and after being fertilized, the flower stem elongates, growing from four to eight inches, turning downward until the small tubercle which is to be the future seed pod, reaches and penetrates the earth. From the lower extremity of each legume, in the early part of its growth, filaments proceed, seeking moisture and probably nutriment from the soil. The seed of the ground-pea abounds in a fine oil which is sometimes expressed for table purposes.

This oil renders it a very valuable crop for fattening hogs, being for this purpose fully equal to and probably better than corn. The vines are greedily eaten by most farm animals.

**Culture.**—The ground-pea thrives and produces best on a light, tolerably fertile soil with a good clay subsoil. Like clover, it possesses a long tap-root which extends deep into the earth, drawing thence the fertilizing properties which are beyond the reach of many of our cultivated crops. The soil should be deep and mellow and well broken up, so as to be ready for planting soon after the heavy frosts are over. The last of March or the first of April is a suitable time.

For field culture, they may be planted in the pod, two in the hill; but for the garden should be shelled. It is best to drop about four in a hill on the level ground; the rows being laid off three and a half feet wide and the hills two feet asunder; cover them two or three inches.

When they come up, thin them to two in a hill, and, if there be any vacancy, transplant. It is better to plant them level than on ridges, as they are less liable to suffer from drouth. As they continue growing all the season, it is well to get them started as early as the season will permit. The only after-culture they require is to keep the ground clear and mellow, and a slight hilling up when they are laid by. They will produce from twenty-five to seventy or eighty bushels per acre, according to soil and culture, and are as easily cultivated as corn.

**FLOWER SEEDS.**—We are indebted to ROBERT NELSON, Esq., of this city, for a collection of Annual Flower Seeds, embracing many varieties very beautiful, and heretofore quite rare. These seeds will be supplied per mail on the terms set forth in Mr. NELSON'S advertisement, which see.

## OUR BOOK TABLE.

**THE ANATOMY AND PHYSIOLOGY OF THE HORSE:** With Anatomical and Quæstional Illustrations. Containing also, a series of Examinations on Equine Anatomy and Physiology, with instructions in reference to Dissection and the mode of making Anatomical Preparations. To which is added, Glossary of Veterinary Technicalities, Toxicological Chart, and Dictionary of Veterinary Science. By GEORGE H. DADD, M. D., V. S., author of "The Modern Horse Doctor," "Cattle Doctor," etc. Boston: Published by JOHN P. JEWETT & Co. 1857.

As the title indicates, the above work is intended for Veterinary Surgeons, and those who would make the anatomy and diseases of the Horse a study. It is the most complete treatise of the kind that we have yet seen, and should have a place in every enlightened farmer's library. It forms a large octavo of nearly 300 pages, and the typographical execution and embellishments of the work are excellent. It may be ordered from the publishers, as above.

**THE VERMONT STOCK JOURNAL** is a new monthly paper, published at Middlebury, Vt., by D. C. LINSLEY, at 50 cents per annum. It is devoted to the interests of Stock Raisers, and contains much information of value.

**DRAINAGE**—A Statement of Facts, showing the advantages and profits of Thorough Drainage.

This pamphlet should receive careful consideration from all owners of swampy and wet lands—who may receive much benefit from its facts and suggestions, whether they adopt Draining Tile or not. Copies may be had per mail from C. & W. McCAMMON, Albany, N. Y.

**THE RURAL ANNUAL AND HORTICULTURAL DIRECTORY,** for 1857, contains a valuable article on Rural Architecture, accompanied by beautiful designs of Farm Houses, Cottages, Suburban Residences, &c., also practical treatises on the management of Fruit, Flower and Kitchen Gardens, cultivation of Grapes, Strawberries, Raspberries, Blackberries, Gooseberries, Currants, &c.; plan for laying out a Fruit Garden and Ornamental Grounds with the best location for Fruit Trees, Vegetables, &c., together with useful articles on the rearing and management of Poultry, and various other subjects of interest to every lover of rural life. It contains also a very full and correct list of Nurserymen in the United States and Canada; List of Agricultural Implement Makers, &c., together with a list of the Fruits recommended by the American Pomological Society, as corrected at its last meeting, held at Rochester, September, 1856. It is a work of 141 pages, illustrated with 80 engravings, and is alike attractive and useful, containing as much matter and more information than many dollar books.

This beautiful and valuable work will be sent, postage paid, to any address, on the receipt of 25 cents in postage stamps. Address JOSEPH HARRIS, Rochester, N. Y.

**THE HORTICULTURIST,** for February, contains the following articles:

Landscape in connection with Tree Planting; A short account of the Life and Writings of John Claudius Loudon—By his Widow; Visits to Country Places, No. 7, around Boston. H. Hollis Hunnewell's, Mr. Wilder's, Mr. Peabody's, R. S. Fay's, Col. Perkin's, Gen. Lyman's, J. E. Thayer's, J. S. Armory's, J. S. Gardener's, Botanical Gar-

den at Cambridge, Hovey's Nurseries; Gas for Country Houses, with a cut; Night Temperature—by Amicus, Philadelphia; A few words about Sickly Pear Trees—by the late A. J. Downing; Frost, and the Cunila Mariana. or Dittany—by J. Stauffer, Mount Joy, Pa.; Garden Vegetables, No. 2—The Cauliflower—by W. M. Chorlton; Remarks on some of the Chinese Plants—by J. B. Garber, Columbia, Pa.; Wine Making—by Edward C. Delavan, N. Y.; Vine Borders heated artificially, with a cut; Clematis patens, var. Amelia and Louisa; Reply to Dr. Ward on Pear Culture—by T. W. Field, New York; Monstrous Brocoli, with a cut; Fruit Culture—by W. B. Waldo, N. Y.; Prost Gage Plum—by Wm. Tompkins, New York.

*Horticultural Review.*—Patent Office Report: Manual of Botany—by Asa Gray; Strawberries, Graperies, Grapes—The Winter Contest.

*Editor's Table.*—The Journal of the U. S. Agricultural Society; The Transactions of the Pomological Society; Intermediate Native Fruit Reports; Pears, why not more plentiful; Roses; The Cloth of Gold; Grape Vine Borders; Grafting Geraniums; The Guava fruited at Cleveland, and notice of other varieties, and the Eugenia fragrans; Origin of Cuba Bast; Firewood—Gossip; Trees as Arches; Lippincott's Gazetteer of the World; Taxodium sempervirens; Washington Gigantea; Baumann's Plan of the New York Park; The Schuylkill Park; Answers to Correspondents; Catalogues, &c., received; Note from Cincinnati; The Valonia Oak, by Alan W. Corson.

*Calendar of Operations for February.*—Vegetable Garden, Fruit Trees, Pruning, Grapery, Greenhouse, Flower Garden and Pleasure Grounds—by Wm. Saunders.

TERMS, \$2 per annum. Address

ROBT. PEARSALL SMITH,  
Philadelphia, Pa.

**COOPER'S PATENT PLOW.**—Mr. G. W. COOPER, of Scriven county, Ga., has presented us with one of his new adjustable plow stocks, which evinces much ingenuity and mechanical skill. It is so arranged that the depth of furrow, elevation of handles, &c., is entirely under the control of the plowman, and the ease with which every variety of point or share can be attached to the stock, adds greatly to its practical value. It is mostly of iron, very light, strong and durable, and seems to combine many of the advantages of Forman's, Warlick's and other stocks heretofore noticed. The patentee will dispose of rights for the use of this stock on reasonable terms. A sample of the plow, with many others of different construction, may be seen at "*Fruitland Nursery.*"

#### CHINESE SUGAR CANE AND PROLIFIC PEA.

We have purposely delayed sending out the packages of these seeds until the present time in order that we might "make one job of it." We send them now (March 1st) in full time for planting, and if any of our readers who have, previous to this, ordered through us, fail to receive their seeds by the 20th inst., they will confer a favor by informing us at once.

Mr. A. SHERMAN, the Travelling Agent of C. M. SAXTON & Co., will also receive subscriptions for the *Cultivator*, and we commend him to the attention of our friends throughout the country.

**CHINESE PROLIFIC PEA!**—For a full description of this Pea, see the advertisement of Messrs. PLUMB & LEITNER, in another column.

TO CORRESPONDENTS.—We have yet on file for insertion many practical and valuable communications on the various subjects to which our journal is devoted—for all of which we will endeavor to find room in good time.

#### CHINESE SUGAR CANE.

At the late meeting of the United States Agricultural Society, Mr. D. J. BROWNE, of the Patent Office, was requested to give in his "experience," in respect to it. This he did with great readiness, tact and ability, and no doubt to the general satisfaction of his numerous and intelligent questioners. Every sort of inquiry was made, and as promptly answered by Mr. BROWNE. We append the main points in relation to this addition to our cultivated plants, as elicited from the remarks and replies of that gentleman. He first observed that he could say no more than had been already published, but was willing to reply to any queries that might be put. As to the process of granulation of the Sorghum, he could not say much, but the proportion of crystalizable syrup depends on the dryness or moisture of the land on which the plant grows. It should be cut when in its milky state. When pressed it is deprived of its leaves and passed through rollers; and for crystallization the syrup should be raised a little above blood heat. In some cases the old-fashioned cider press had succeeded. Could not say how the free acid evolved would be best neutralized, but it is generally done by lime water. When a saccharate of lime is formed the fluid remains sweet. When the plant is cut at 45 or 50 degrees Fahrenheit it does not ferment, but keeps sweet, but if cut earlier in the season than when this temperature prevails it is apt to run into the ascetic fermentation. Five cuttings of Sorghum had been made in Florida last year. Sugar could sometimes be had from the dry stalks, but it is expensive. It contains saccharine matter as far North as the milky state can be had; in Massachusetts it has shown 23 per cent. of sugar, here in Washington only 14 per cent. It requires a dry and soil and hot sun. Should not be planted so soon as Indian corn by several days. Will mature in less than a hundred days from sowing the seed. For sugar it flourishes best on poor soils, but for fattening animals on rich soils. For sugar it should be harvested, or rather cut late in the season, but for seed should be cut, and therefore planted earlier. As a fodder, Mr. B. considered it as making a revolution in cattle-fodder all through the Union. The seed can be produced at the price of oats, at the rate of fifty or sixty bushels to the acre, and can be converted into bread or chocolate, fed to fowls, &c. It will give 1500 gallons of vinegar to the acre. The most northerly point of its growth is Minnesota. If the seed be cut off it will sprout again and bear double, as last year in South Carolina! Did not think it good for producing quantity as much as a fine quality of milk. These answers were made to questions chiefly from Hon. Mr. CLEMONS, Prof. NASH, Mr. WARING, and others; and in the discussion Mr. CLEMONS and Dr. ANTISELL took prominent parts.

**GARDENS FOR CHILDREN.**—Children's gardens are now the fashion in Germany, and have been successfully introduced into London. A practical guide to the English Kintergarten, has been issued by the "Council of Education," and a monthly journal was commenced in May last, by Mr. and Mrs. Ronge, who have established an institution for the training of teachers, young ladies and nurses; their form of education is introduced into the wealthy families in aristocratic quarters. Nothing could promise better both for youth and age.

### THE GROWTH OF COTTON IN THE UNITED STATES and its Manufacture in England.

ONE might challenge the industrial statistics of the civilized world to furnish a more interesting and instructive body of facts than those which would express the progress of cotton culture in this country, and of its manufacture in England, in the last sixty years. England has had, and still has, the capital, labor and coal, as well as the industry, enterprise and commerce, necessary to excel all other nations in the cheap and extensive production of cotton goods, and in finding adequate markets for the same. History teaches the pregnant fact; nor is it likely that any country will equal her in this important branch of manufacturing industry for many years to come. In the last fifty years, the general increase of population in the Island of Great Britain has been about 100 per cent; while on an area of near 220,000 acres surrounding Manchester, the increase during the same period has been 235 per cent., and in Manchester and 15 other towns within the same area, the increase has been 320 per cent. Considering what Great Britain has lost by emigration to her numerous provinces and the United States, the rapid progress of her agriculture, and consequent increased demand for labor therein, and the great commercial prosperity of London, Liverpool, and other cities, the growth of the Cotton Manufacturing District of England is without a parallel in the Old World. Congress has endeavored, by high import duties on British cotton fabrics, when brought into this country for consumption, to transfer the labor of carding, spinning and weaving cotton from Old to New England; but with indifferent success. On the other hand, Parliament has made no inconsiderable efforts to obtain a full supply of cotton from India, and other countries than the Southern States, with no better results. The laws of trade are more potent than those of Legislatures, because they are laws of Nature. The manufacture of cotton, however, is extending in France, Germany, Russia, and in other European nations, as well as in America. Allow to the two hundred and fifty million people in Europe the same amount of cotton goods per head which it takes to supply the inhabitants of this country, and the consumption of our great staple will be doubled from this increase alone. Can it be produced to the extent it is likely to be needed during the next twenty-five years?

We doubt if it can, unless much more free labor is employed in its cultivation than at present. It would be a national misfortune to lose the many advantages secured to the republic by virtue of having almost a monopoly of this article of prime necessity in clothing mankind. It will ever do more than anything else to save us from the expense and misfortunes of a war with any of the great powers of the Eastern Continent. As a Pacificator the Cotton Plant is unrivalled. Its power in this regard will be maintained just in proportion to the dependence of Europe on the United States for a supply of its lint; and our success for the next quarter of a century in fully meeting the European markets will depend on our skill in growing cotton, and maintaining the natural fruitfulness of the

soil. It is not enough that we have an abundance of efficient labor to produce all the cotton the world shall need, in addition to what is raised in other countries. We must have good land in equal abundance before we are safe from outside competition, and the danger of losing every material advantage we now possess. Very unwillingly does England depend so much on the Cotton-growing States of the American Confederacy for an article so indispensable to her domestic peace and prosperity. Having, however, tried thirty years in vain to supply her wants from other quarters, she is beginning to make her necessity a national virtue, and to speak more respectfully of the kind of labor which produces her cotton. New England will ere long do likewise; nor will similar influences fail to operate in France and Germany.

In a word, people are not apt to quarrel long and earnestly with their bread and butter, nor look with jaundiced eyes at the sources of their wealth, when once understood. Without interfering with other branches of Southern agriculture, we can grow not much over three and a half million bags, having an average weight of 450 pounds. This gives 1,575,000,000 pounds. Allowing three pounds of seed cotton to produce one of lint, there must be *fingers* enough to pick four thousand seven hundred and twenty-five million pounds, as gathered in cotton fields.

Allowing that the present low standard of physical comfort with the laboring millions of Europe, and the masses everywhere, is destined to rise rapidly as compared with the past, it is easy to see a corresponding increased demand for all kinds of cotton fabrics, whether of clothing, bedding or other household goods made of cotton, sail cloth, or bags for holding grain and flour. Looking to the almost infinite variety of uses to which this article may be applied, and its more than probable future consumption, we are a little concerned to know where all the fingers are to come from to pick nine or ten thousand million pounds of seed cotton in the few months allowed to this work in autumn. Possibly they may come in part from western Africa, from Eastern Asia, from Europe, from the Northern States; but certain we are they will come from some quarter when needed. If there is anything in the natural attractions of soil and climate, of good government that affords security to life and property, then the Southern States are destined to be at once the richest and most populous part of the christianized world. Our process of reasoning on this subject is simple and in this wise: The longevity of the people of the South, their success in growing all the valuable plants adapted to temperate zones, and many that demand the heat of a tropical summer, attest the truth of the remark that the South has a peculiar and remarkable climate, and one as salubrious as it is extraordinary for its agricultural capabilities. These are *natural* advantages, and will certainly be known in time among all commercial people and nations.

We have shown elsewhere, in the present number of the *Cultivator*, and from reliable sources of information, that the citizens of Georgia are worth *per capita* 150 per cent. more than the citizens of the State of New York.

We do not say that the citizens of our adopted State are more industrious, intelligent, or more economical than those of our native State; but we do say that one can raise a crop of wheat and one of corn in succession on the same land in Georgia, in the time consumed in the growth of either crop in New York. In the last named State it requires the heat of *two* summers to produce both crops; in Georgia the heat of one is sufficient. This, however, is less than half the advantage which Georgia has over all climates like that of New York. Winter in Georgia is just cold enough, and just long enough fully to renovate man's physical and mental energies, so that he can labor happily and profitably, throughout the year. Place a tropical sun over our heads twelve months in succession, and our cotton crop would soon be no larger than that of South America. The recuperating influence of our Southern winters has not received that public attention to which it is fairly entitled. With what elasticity of muscle, and strength of will are hundreds of thousands of planters, now engaged in preparing the earth to receive its seed, and in committing it to their well-tilled soil? Their energy has often excited our admiration; and with the smiles of Providence, the cotton crop of 1857 will considerably exceed that of any previous year.

L.

#### COMPOST FOR GARDENS.

"A GARDENER," in the *Germantown Telegraph*, gives us the following good compost for gardens:—"Perhaps the best manure that can be used on gardens, is animal excrement in a decomposed state; but as this is not always available, a very efficient substitute is found in a compost made of muck, one part; gypsum, lime, charcoal dust, bone manure and salt, equal proportions, one part; clay, one part; and chip manure, one part. These ingredients are to be thoroughly incorporated, and wet with urine, or soap suds. A small quantity of sulphuric acid diluted with water—one thousand parts water to one of acid—will be found beneficial, if sprinkled over the compost before applying it, as will also a solution of copperas in water. Both these liquids are powerful *fixers*, and therefore tend to economise the volatile and gaseous products of decomposition, and renders them available to the plants. By filling the soil with this compost, we may secure a good crop of almost any vegetable. It is cheap as well as efficient, and may be prepared in almost any quantity."

A travelling correspondent of the *New England Farmer* makes the following fling at our imperfect system of farming. We fear there is too much truth in his strictures. Let us strive manfully to shake off our supineness, and furnish our enemies with no cause to reproach us:

Most of Georgian and South Carolina farmers, as far as my observations extended, never make, save nor apply any kind of manure. Land is cultivated, or rather cropped, as long as it is capable of producing anything, without regard to rotation, and then left common, making what is termed "old fields."

The area of this worn out land is rapidly extending itself, planters seeking some new spot, again to practice the same exhausting process of tillage.

Farming tools, that belong as far back as the seventeenth century; plowing that merely scratches the surface; overseers who have no intelligent notions about agriculture; slaves who care not how their work is performed; absence of homemarkets for fruit and other perishable products; the frequent and entire loss of crops upon land shallowly plowed in seasons of drouth, are a few of the disadvantages and features common to Southern farming.

GREAT PRODUCTION.—A writer in the *Working Farmer*, states that Mr. Edwin Shaterell, of Rahway, N. J., raised from a single seed, twenty Valparaiso Squashes, weighing in the aggregate 2500 pounds. One weighed 154 pounds. The seed was planted on a heap of pond muck which had lain exposed to the weather about a year. The same writer says, Mr. Wm. Marshall, Jr., of Somers, New York, picked, last season, from a piece of ground measuring 15 by 21 feet, 162 quarts of strawberries, or at the rate of 268 bushels 12 quarts per acre.

EXTRAORDINARY SALE OF APPLES.—We have the pleasure of putting on record (says the *Nashville Banner*), probably the best sale of fruit ever known in this country, and that, too, of Tennessee fruit. The specimens of apples exhibited at the Fair by Mr. J. W. Dodge, artist, raised on his farm in Cumberland county, on the mountain, were sold at auction on Wednesday night. They were sold by the half dozen, and as high as \$5 20 per half dozen paid. The whole lot sold, amounting to about a barrel and a half, of seven varieties, brought \$111. If any of our famous fruit-growing States in any section of the Union can equal this, we should like to hear from them.

### Horticultural Department.

#### FLOWERS FOR THE SOUTH.

("Closia Crinita"—Cockscomb.)

EDITORS SOUTHERN CULTIVATOR—"Did anybody ever see the like?"

"Why, sir, I declare I thought you had a better taste than to plant such an old-fashioned thing, which I have known since I was a little girl—it always grew in my grand-mother's garden—the common old *Prince's Feather*!" This, and similar exclamations I am listening to almost every day during the summer. Still, by a little closer examination, the ladies admit that they never saw so beautiful *Prince's Feathers* as mine, and before they leave my garden they always tell me to be certain to save some of the seed for them.

Although the Cockscomb is entirely different from the old *Prince's Feather*, (*Amaranthus Caudatus*) which it somewhat resembles, still it is true that it is so old, neglected and forgotten, that it is almost new again. In fact, we have thrown away a heap of fine old plants, (merely because they were old-fashioned), which we ought to get back again, while we have introduced many new ones whose only merit is to be *new*. But I for one will never give up true beauty for so silly a reason, and will continue to plant the "Cockscombs" in my front yard, because they are lasting beauties. From spring, through the whole summer they are growing prettier and prettier, until at last they at once must succumb to the severe stroke of "Jack Frost."

Years ago only a red or deep crimson variety was known. Now they sport in all different shades and hues, in pink, scarlet, crimson, orange, buff, yellow and vari-



gated colors. Unlike most other flowers, they do not get exhausted and wither; no! they are always developing more beauty; they are one of the greatest, as well as most constant ornaments of our gardens, and a group of them on a lawn, or in the front of a house is a most beautiful object. Besides, they are so easily raised from the seed that there is no trouble in getting them, and they are so perfectly adapted to our climate that they will reproduce themselves.

Another species, also very ornamental, is the *Celosia Indica*. It grows up very straight from two to three feet high, producing its flowers in long beautiful spikes, which at first are crimson but afterwards turn white; it is almost indispensable for bouquets.

Both of these plants are annuals, and belong to that class which is called "everlasting," for they will keep for years, particularly the latter, when dried and put away.

ROBERT NELSON.

"Fruitland Nursery," Augusta, Ga., 1857.

#### NOTES ON PEARS AND THEIR CULTURE.

EDITORS SOUTHERN CULTIVATOR—If you think the following observations made during the past summer would interest the readers of your valuable journal, you are at liberty to publish or otherwise dispose of them as may be most in accordance with your opinions.

1st. *Bezi D'La Motte*.—A noble variety, and worthy the attention of all cultivators of the Pear; although not quite first-rate in flavor, its large size and productiveness amply compensates for its slight defects in flavor.

2nd. *Rousselett de Rheims*.—One of a peculiar type or class; of which it is the genitor of a numerous progeny. With the exception of the Seckle, Rostezier and Madeline, this race of diminutive Pears should be erased from the list of cultivators and nurserymen; not from any want of excellence, but in consequence of their small size, as we have an abundance of equally good flavor and of large size.

3rd. *Andrews*.—A large green Pear, with a dull red cheek, of only passable flavor, not more than good.

4th. *Sterens Gencssee, Louis d' Prusse*.—A fine large turbinate shaped Pear of excellent flavor; the trees are vigorous and grow admirably on the quince.

5th. *Belle et Bonne, Belle d' Bruzells*.—A very large turbinate shaped Pear; color, a dull green with some spots of russett, sometimes of fine flavor, at others quite indifferent.

6th. *Cumberland*.—A medium sized and very pretty looking Pear, but of indifferent quality. We have recently noticed that this variety has been placed among the rejected ones.

7th. *Passe Colmar*.—An excellent Pear of medium size, and fine flavor. Worthy of a place in every collection.

8th. *St. Ghislaine*.—May do for saints to eat, but for us sinners, with mouths as large as a clam, it is entirely too small. Let it go with the other small fry.

9th. *Zepherine Gregoire*.—One of the new varieties, with quite a windy or airy name; it is of medium size, turbinate shape, yellow color with considerable russett; the lower part of the stem is much swollen where it joins the fruit. Nothing remarkable in any respect.

10th. *Flemish Beauty*.—Rightly named, and of great excellence at times; at others, not so good; but taking it all in all, should have a place in every collection.

11th. *Dunmore*.—A beautiful Pear, of fine size, flavor and appearance, and should meet with more extended culture than has hitherto been bestowed upon it.

22th. *Glout Morceau*.—A good sized winter Pear at the North; here it ripens in October and November; it is

hardly second-rate in quality, being astringent and of coarse texture.

13th. *Brown Beurre*.—From the high encomiums bestowed upon this Pear we had expected to find it of great excellence; with us it is hardly very good.

14th. *Van Assche*.—One of the new varieties, of large size and every way entitled to attention, being of first-rate flavor, and bound to become popular.

15th. *Rostezier*.—A small early Pear of the Rousselett family; it is of first rate flavor, which is all that saves it from condemnation with us, as we are dead against this host of diminutive varieties.

16th. *Summer Bon Cretien*.—An old and somewhat neglected Pear; in size it is large, and of fine appearance, in flavor about second-rate and deserves more attention than it receives. Ripens in July.

17th. *Easter Bergamotte*.—Ripens in October; rather a queer time for Easter to come. Never will make much noise in the world. Mene, Tekel, Upharsin.

18th. *Julienne*.—The best early Pear yet cultivated at the South; too much cannot be said in its praise; it is of medium size; pale yellow color, with a long slender stem; in quality, best.

19th. *Wilkinson*.—Although not of first-rate quality, yet from the great productiveness of the tree, together with the beauty of the fruit it will long be a favorite; it is of medium size, a beautiful golden yellow with a carmine cheek.

20th. *Sageret*.—A very pretty speckled pear, but won't "do to tie to," being astringent and rather below size.

21st. *St. Germaine*.—If St. Germaine ever ate one of these pears, I expect he thought he was in purgatory rather than being canonized as a saint.

Our numerous list of Pears needs sifting; entirely too many small ones have a place in it; none should be below the size of PEABODY'S new strawberry. We shall place ourself on our reserved right, and condemn all who do not come up to that standard.

We see no reason nor common sense in retaining so large a number as we now have, when we have plenty of good size and equally as fine flavor. The Seckle, Madeline and Rostizer are sufficient to gratify the lover of small varieties.

We would here take occasion to urge upon our Southern friends to plant Pear seeds, and test the varieties raised by grafting them when one year old upon bearing trees which will hasten the time of fruiting very materially. We are willing to hazard our opinion in saying that our Southern Seedling Pears will be as far superior to those of European or Northern origin as are our Southern Apples.

Time will give us these, and until then we must of necessity use the former. Northern varieties are usually more healthy and less subject to blight than the European varieties, although there are quite a large number of those, particularly of the old and well established varieties that are vigorous and healthy.

Very little has yet been accomplished in Pear Culture which is of any benefit to the South, except the discovery and detection of synonyms. As to which varieties are best, experiment alone can determine, for the difference between the soil and climate of the North and South is so great it is but reasonable to infer the character of the fruit produced in the two sections will be equally as great.

Were it necessary, we could give instances where a variety of superior excellence at the North had proved of value here, and *visa versa*.

We have under trial quite a number of Southern origin which we hope ere long to produce fruit and will then place the result candidly before the public. We now have



one of superior quality which we shall offer for sale the coming season at our usual price, for we shall not in but rare instances ask anything more. Our object from the commencement of our nursery operations has been to place our trees before our Southern friends at prices a little lower than those asked by Northern nurserymen.

We here avow it has been our intention to afford no excuse for sending to the North as heretofore for fruit or fruit trees. We have every year for several past, paid from 50 cents to \$1.50 per tree at the North for new varieties and the year following sold the same varieties at 40 cents per tree, grown here, from grafts taken from those identical trees. Our object is to place it within the means and tempt our Southern friends to engage in the cultivation of excellent fruit in abundance, and we have the gratification of saying our motives have thus far been duly appreciated and seconded.

We had the pleasure of receiving a letter a few days since from an enterprising citizen of this State, who says: "in five years Georgia will be the greatest fruit growing State in the Union. If so this will be a rapid stride, as it is but seven years since the attention of the public was directed to the substitution of Southern for Northern varieties.

There is an erroneous opinion promulgated at the North in relation to Southern fruit, and we reluctantly are compelled to think designedly, by interested persons. Not long since we read in an extract from an address delivered by a distinguished Northern Pomologist, before a Northern Society, the following paragraph:

"Our Northern Apples are of little value in the South, and the very finest Southern Apples are utterly worthless in the North."

The former part of this assertion is all known to be true, for we have for 30 or 40 years been proving them; but is the latter clause true? For so late as 1845 when Downing's Fruit and Fruit Trees of America went to press, it appears there was no such anomaly known as Southern fruits, for with the exception of the Columbia Peach and the Father Abraham Apple, none are mentioned; and even in 1855 when BARRY's was published, in his descriptive list of 133 varieties of Apples, but four hail from the South of Mason and Dixon's Line, to wit: Bokannon, Red June, Cane and Limber Twig. Now, as our Southern Apples have only been before the public for seven or eight years (with but few exceptions,) how does the distinguished orator know "Southern varieties are utterly worthless at the North."

We here will run the risk of saying not one of our Southern varieties, with the exception of those four mentioned above, have ever been grown or fruited in a State North of Mason and Dixon's Line. We challenge the author to prove to the contrary, for we know they have had neither grafts nor trees from the South, and further if they had, they have not had time to fruit them. We speak of States as far south as Georgia or South Carolina. When the foregoing assertion was made it was for Buncombe, for the benefit of Northern nurserymen, and a fraud upon the Northern fruit growers.

Whether our Southern varieties will succeed at the North or not remains to be tried and ascertained, and when they have had as long experience with ours as we have had with theirs, we shall deem them competent to judge.

Northern nurserymen see and know that the glory is about to depart from Judeah, and fear that they must soon exclaim "alas! Othello's occupation's gone."


We do not claim to be a prophet nor the son of a prophet, but the North must pay back the amount she has received from the South with interest for fruit and fruit trees purchased from her, or be content with indifferent

varieties, and second-rate prices in the market, or procure her trees from the South.

The reasons urged against Northern varieties and trees will not apply to Southern varieties going North. Our trees are raised in a more sterile soil than theirs, and on being removed to a better, as we know theils to be, will have a tendency to increase the size of the fruit, to say the least, Southern raised trees are healthier and less subject to disease than Northern, and instead of dying down will grow off vigorously. Some of our varieties may not have time to arrive at perfection there, but that is a question to be yet determined by experiment.

J. VAN BUREN.

Clarksville, Ga., 1857.

 A very distinguished Pomologist, well known both in Europe and America, writes us as follows, from Florida: **APPLES IN THE SOUTH.**

EDITORS SOUTHERN CULTIVATOR—During my rambles through the Carolinas and Georgia I was much surprised to see that the larger part of the apples sold in the stores were products of the North, while the North Carolina and Georgia Apples are nearly all of superior quality, and most of them very productive varieties. With such Apples as the Buff, Nickajack, the Camak, and Carolina Greening, and many others, the South could depend on its own resources, without the expenses and inconveniences of transportation, which almost always proves so injurious to fruit, especially late in the fall.

A circumstance which struck me all over the Southern States is the comparatively small number of Apple and Pear trees. The Peach tree alone seeming to be cultivated or, in some localities, rather allowed to grow spontaneously. What I have seen of the few Apple and Pear trees is enough to convince me that they succeed admirably in these latitudes, grow faster, are less exposed to diseases and produce uncommonly fine crops. If neglect or carelessness could be justified, the fact that the blossoms are often injured by spring frosts could be brought in as an excuse or justification; but as it is not a drawback to the cultivation of the Peach tree, although as much and perhaps more exposed to those frosts and other inconveniences (as the borer, the short living of the tree) why should it be an objection to raise other fruits as useful, perhaps more so than the Peach?

Travelling through extensive plains and valleys, with hardly one Apple tree in sight, I was often thinking that if only a good apple tree was to be found on an average to every ten acres of ground, instead of purchasing poor Apples from the North, the South could not only supply its own wants but send to the middle States Apples of a quality and flavor unknown in the Northern States. It is a very singular feature in Pomology that almost all the Southern Apples possess a spiciness, an aroma, a richness of flavor which we find in very few of the Northern varieties. They are, moreover, of uncommon size, and some last as long as the late Northern varieties.

There are many valleys, many favored spots in that rich, varied and sunny Georgia where Apple and Pear trees would escape the spring frosts. This fact will be better known when more fruit trees shall be planted in different localities on southern and northern slopes of the mountains or in favored and protected valleys. It is hardly possible to expect fruit trees to grow equally thrifty and to be equally productive in every spot of such vast area as North and South Carolina, Alabama and Georgia. In France, only a few provinces are celebrated as fruit

growing localities, such is Normandy for its Apples, Angers for the Pears, other departments for the Grape, and Gascoigne for its Plums, Peaches and Nectarines. &c. The same law will prevail here; but it must be tried and found out, as it will undoubtedly be in a few years hence.

There are few more hardy, lasting and well shaped trees than some of our fine varieties of native Apples. Most of these have recently sprung from native seed and possess all the vigor and thriftiness of young and new varieties. The Apples of the North and East are unsuccessful in the South; but this is not to be regretted. I have seen and tasted enough of those noble Southern Seedlings to be induced to try their cultivation in the middle States, where most of them will undoubtedly retain their high qualities and their beautiful size and appearance.

The North has a hundred apple trees, at least, for every one to be found here, and still the North had not enough for a good supply at home. Apples sold at \$5 and \$6 per barrel. It was nearly the same in 1855, and still those repeated failures do not discourage our planters. They have winters of Arctic severity, spring frosts like yours; still they keep on. Why should you not try under more favorable conditions? B.

January, 1857.

#### GRAFTING FRUIT TREES—CABBAGE Aphis, &c.

EDITORS SOUTHERN CULTIVATOR—A correspondent, "L," in your November [1856] number, inquires for information in reference to grafting the Peach. I have practiced it for several years with complete success, and greatly prefer it to budding. My method is to lift one year old stocks early in February; cut off the tap root (as short as may be to leave a goodly number of horizontal roots) with a slanting cut, cut clean the bruised ends of the others and insert the graft at the collar of the root, by the usual method of cleft grafting, or, for very small stocks, whip grafting. Then replant either where I wish it to remain or in a nursery, being careful not to handle it by the graft, or to let that receive any sort of a push or tap. I use waxed cloth instead of wax. I think it every way preferable.

In February, 1855, I grafted a plum scion in a peach stock without lifting the latter. As an experiment, I removed the soil from around it and cut off all the horizontal roots. The plum tree is now twelve feet high, well branched from within eighteen inches of the ground, measures six inches and a half in circumference above the swell of the graft, and promises to produce some fruit next year.

At the same time, I grafted a peach graft in a sprout which came up from a horizontal root of a plum tree. That year the peach grew 6 feet high with four or five lateral boughs, and was covered with fruit buds. I was obliged to transplant it in the spring of 1856; but notwithstanding this check it matured six excellent peaches, all that were suffered to remain on it. This stock had no tap root at all.

In February of the last year, I grafted a peach in a three year old stock of the common flowering almond. In this one season it has grown to a height of seven feet; is thickly branched on every side, and covered with fruit buds. My object was to dwarf the peach, but whatever the result may be it does not promise that at present. I give these experiments for what they are worth.

Have you ever known a barren plum tree? In 1852 a volunteer seedling came up in my garden, which, from its peculiar appearance, I was induced to save. In 1854 it

bore one plum of a remarkable fine quality, the rest of its fruit being destroyed, as I supposed, by a late frost. In 1855 it was covered with blossoms, but produced no fruit, which, without examination, I ascribed to the same cause. Last year it was again loaded with flowers, and I examined a great many of them carefully. The result was that I found in every one a mere rudimentary pistil, and that was black and dead. All the other parts of the blossom were perfect and healthy. What is the explanation of this? Is it a natural defect? or is it attributable to some incidental cause? The tree grows in a good soil, is very thrifty and is evidently a variety of the common chickasaw plum.

Your correspondent "L," will find nothing so efficacious as a remedy for the Cabbage aphid as Scotch snuff, sprinkled freely on them, or cutting off every leaf on which they appear and grinding it to powder, and even then if he lets one escape, in two days they will all be back again.

I had a favorite plum tree which was awfully attacked by the black aphid. Limb, leaf and fruit they covered it like a pall of death. At the urgent advice of a friend and with no faith in the remedy, I was induced to bore a half inch hole in the trunk of the tree, half through, and fill it with the flour of sulphur. In five days every aphid was gone, and though they re-appeared in small numbers on other trees and vines, they never touched that tree again, yet, however, I am not certain about the sulphur.

In conclusion, let me thank Mr. WHITE, for his "Gardening for the South," the very thing for every one who, like myself, is

A LEARNER.

Selma, Ala., 1857.

#### GRAPE CULTURE IN TENNESSEE.

BY JOHN R. EAKIN, OF WARTRACE, TENN.

THE writer has for several years, been engaged in the effort to establish a vineyard in Middle Tennessee, near Wartrace. As he has year by year marked the result of the effort, and acquired information from other quarters, both at home and abroad, he has become more and more convinced that the thing is eminently practical, and worthy the attention of all who desire the advancement and prosperity of the State.

It is fast becoming here in this country a question, how the least ground can be made to produce the most value. With our forefathers it was a different question, given an unlimited quantity of ground, how can the least labor turn out the largest product. Slovenly modes of culture and crops that required little care or neatness, were the natural results of an extensive surface of rich ground, and a scarcity of hands. It has been corn after corn, and cotton, cotton to the end of the chapter; very naturally, too, because such things with a virgin soil, and sparse population were the most profitable in that day. But, the cream of the soil has been all skimmed away; families have grown up and divided the old homestead—worn as they are—immigration has demanded room also, and new modes of culture must be devised, and people must set themselves to solve the other problem, too. When they begin to work at it in earnest it will be the inauguration of a new era and a better one, which I hope is not far off. Facilities of communication with the world opens new markets. We can now sell fruits, hops, willow twigs, ground peas, and best of all, wheat. Many things now bring money which our fathers planted in patches for family use, and threw the overplus away. Cannot vines be made a source of revenue to the State, and of comfortable subsistence to families, confined to small portions of ground, but willing to work for a living? Let us see what we are promised in what has already been done. The vineyards in the vicinity of Cincinnati are cultivated almost exclusively by

Germans. They labor in them with their wives and children, the cultivation is light, and after the first preparation of the ground, all the members of the family can assist. Each acre so cultivated, will produce, one year with another, three hundred and fifty gallons of wine, at a low estimate, worth one dollar per gallon. The average of some vineyards is far above this, some below it; but this is a fair average and a safe one for our calculations. Suppose it to be only half that or one hundred and seventy-five gallons. My head vine-dresser, himself a German, and experienced in the business, tells me that a man and his family will cultivate 3 acres with little difficulty and two and a half acres with ease. Take the lowest estimate, and we have \$437; this on two and a half acres, without hired labor. But this calculation will be considered by those more versed in the business, ridiculously low. I put it so to show with what certainty on how small a portion of land an industrious family may make a support. Seven hundred dollars would be a much more reasonable calculation of the value of their produce, leaving out the ordinary productions of a kitchen garden. It is for this class that the introduction of the vine culture will do the most. The class who tire of living from hand to mouth, tending corn on rented land, and who finally with their families and a cart, wend their weary way to the swamps of Arkansas, Missouri and Texas—or worse still, give up in despair, and take to politics and the grog shop.

Passing by the amateur (who will cultivate his vineyard as he does his roses, profitable or not), the man of capital has every inducement to embark in this business as a source of profit. The annual expense per acre of cultivating a vineyard has been estimated with the utmost accuracy. It amounts to about sixty dollars. Independent of the wine made, the sale of cuttings each year nearly pays the expense of cultivation. The crop has been estimated above in a rough manner. Three hundred gallons are very safely calculated on. Mr. Buchanan one year made eight hundred and eighty-four. His average for seven years was over four hundred gallons to the acre. When the wine is prepared and bottled, it will nett 150 per cent. upon these calculations; but every thing is put at the lowest, as when sold from the press, after fermentation.

We can hardly conceive the immense addition to the wealth of Tennessee—or its capacity for increased population and power, should it be found that its soil and climate are adapted to this culture, and its citizens encouraged to pursue it.

There is every reason to hope that we are peculiarly well situated in this respect. We have the climate of the South of Europe, and our calcareous hill sides afford the elements of soil every where thought most desirable. The vine flourishes under more varieties of climate and soil than any other plant intended for the use of man, I believe, Indian corn not excepted. From the sunny plains of Persia, to the cold and misty shores of England, it has pushed its way through Europe, becoming better at this place and worse at that, but pervading every country, and hailed as a blessing. In our country it is indigenous. Nature herself has marked out our adaptedness.

Its culture has not heretofore been general for several obvious reasons. In the first place, we were not wine growing emigrants, and had too much which it was more profitable to do, to take time to learn. Not until the present generation, has the immigration from wine producing countries been very large, and the application of their own habits of agricultural management is just beginning to attract attention.

Quite early, however, in the West, intelligent and far-seeing men had turned their thoughts in this way, and many experiments were made to introduce the business, with but little success. We had not learned enough, and, more than all, had not found the right kind of grape. It

lays at our feet, and we were striving to acclimate the European grapes—they themselves, being strangers in Europe, old natives of Persia. They refused to cross the ocean after that, died out, and became barren, and almost ruined all hope of our wine making at all. Daniel Webster declared that we never could; we lacked the volcanic element in our soil, and would have to give it up. We were both to think so. Mr. Longworth, of Cincinnati, especially, hung on to the idea of acclimating the grapes of Europe. It is admirable to read of the pertinacity with which he struggled after this object regardless of expense, and hopeful after defeat. Hear what he says:

"There never was a year, for twenty years, that I did not collect foreign grape roots from some of our Eastern cities. I also imported over 5000 grape roots from Madeira, of all their best wine grapes; as many from the middle part of France and from Germany. All lived and were cultivated for a few years, and finally discarded. As a last trial, I imported 6000 roots, composed of 24 varieties of grapes, from the mountains of Jura, in the north part of France, where the vine region suddenly ends. Their vineyards are for months covered with snow. My success was no better than with vines from a warmer climate."

Discouraging enough to drop the kettle at last! but Mr. Longworth had the true grit, and hit it at last with a native grape. He has earned the name of the father of wine making in the West.

Coming nearer home to our own State and city, we find that the same spirit has been operating here. Many have been impelled by the same hope of acclimating the foreign grapes, to make long and expensive efforts. The most remarkable and noteworthy of these was made by our fellow citizen, Dr. Felix Robertson, nearly half a century ago. It becomes a matter of historical interest, which I hope will be my excuse for publishing, in full, a letter lately received from the Doctor on the subject. Every portion of the letter is interesting—not the least so to me, his cheerful God speed at the end.

NASHVILLE, August 30, 1856.

MR. JOHN R. EAKIN—Dear Sir:—I received a few days since your letter asking information on the subject of the culture of the foreign grape. I believe I was the first person in this vicinity who made an attempt at the culture of the vine to any extent. I cannot be precise as to dates, having nothing but memory to rely on. I think it was in 1810 that I commenced. There was no means of obtaining slips at that time nigher than Glasgow, Kentucky. I ordered a quantity of slips from there, sufficient as I supposed, to set ten acres. They were brought down in cold, dry weather, and from the carelessness of the wagoner, (who neither gave them water or protection,) they arrived in very bad condition, and caused it to be two or three years before I had the ground fully set. I planted them, I think six feet by four, a stake to each, six or eight feet high. I did not prepare the ground as was directed, by deep and thorough spading and turning. It was prepared as well as could be expected with the plow. I think my collection only comprised four or five varieties. A large and small cape grape, Madeira and Bordeaux. I do not at present recollect any others, all said to be foreign. The Long Cape is what is now called by some the Schuykill Muscatel, and is, I believe, by many, claimed as a native. This is decidedly the best table grape I have yet tasted. The Small Cape was something over half the size of the larger; round, black berry, and quite sweet. It bore in short, compact bunches. The Madeira was much such a looking grape as to color and size as the Isabella, but I think a purer sweet. The Bordeaux was a large, round berry, in short and very compact bunches.

About the time the vines first commenced bearing, I

met with a Swiss who said he had been raised to the culture of the grape, and I employed him to attend to the vineyard. He paid very strict attention to it for two years but became disheartened at the prospect and left.

From the time the vines commenced bearing, you could see they were becoming unhealthy, and in a few years they had not strength to form any bearing wood. I made but very little wine; it seemed to be more like claret than any other wine.

In 1820, I think, I broke up the vineyard, and sold what vines were still living to Col. W. Williams, who transplanted them to his farm a few miles off. They flourished again pretty well for a few years, but finally died out, and the Col. has abandoned the culture. Mr. Francis Fink, a German, soon after my failure, planted some five or six acres, three or four miles from Nashville, and continued to cultivate them for several years, but finally despaired of succeeding, and sold out and removed to Ohio. His stock was foreign vines. I have known several others make trials on a small scale, say from a half to one or two acres, but invariably with like results. Some have lately commenced grapes that are said to be native, and as yet are in good spirits of succeeding; but I doubt whether the short time which they have been at it, would justify a positive conclusion. All the vineyards which I have seen have been, I think, on too flat or level land. Hill sides, and those having gravel in their composition, I should prefer. I have seen a few vines of the Long Cape cultivated to furnish the table, which have succeeded admirably. They were planted in yards, and trained on the house or trellis to the full extent of their growth. This vine, treated in that way, perhaps would succeed in field culture, extended on trellis work. They are, I think, decidedly the best table grape yet cultivated amongst us, and is worth the exertion to obtain it. I think I have seen on a single vine more than five bushels of bunches of grapes.

The grape is the only sure fruit crop we have. I have never known them to fail. They are sometimes affected by rot, the cause of which I do not believe is certainly known. It commences in a minute spot as if it were the sting of some insect, and rapidly spreads over the berry. It appeared to me that it was apt to occur in very wet, or very dry seasons. Some persons attribute it to wet, some to drouth.

I have thus, Sir, given you a short and hasty sketch of my experience of the grape culture, and wish it could have been fuller and more satisfactory. I hope and believe that you will succeed better than we who have preceded you, and that the culture of the grape may become a profitable business in our country. The pleasure of our tables would be greatly increased, and the intemperate use of distilled spirits much curtailed thereby.

Wishing you great success in your enterprise, I am dear sir,

Your obedient servant,  
FELIX ROBERTSON.

Several others have continued to experiment with foreign varieties from time to time, in this State and elsewhere, with uniform non-success. It is almost hopeless, yet in the infinite varieties of our soil and local influences, there may still be found places where it will succeed. Mr. Camus, a Frenchman, having a small vineyard on the Nashville road, about ten miles from Nashville, has three varieties of French grapes, or supposed to be, which are bearing abundantly, and as yet give no signs of decay. He has made a small quantity of wine from mixed grapes, but owing, no doubt, to imperfect appliances, it is of too acid a character to suit the general taste. His vines are beautifully luxuriant, and may turn out hereafter to be highly valuable. It will require some years yet to test

their health and durability, after so many failures, but Mr. Camus himself is very confident of them under his mode of culture.

In our native grapes now lie the deep hopes. The Isabella and Catawba stand yet at the head of the best for wine, more especially the latter. It is a native of North Carolina, near about our own latitude, and from a country very similar. It was first introduced to public notice by Major Adlum, who considered he had rendered thereby a greater service to the country than if he had paid the National debt. Nine-tenths of the wines about Cincinnati are the product of this grape. As yet it is pre-eminent, but not perfect. It is very liable to disease, and often disappoints the hopes of the vintner. We may have in our forests something better still, and all those grapes which are observed to be of remarkable excellence in a wild state, should be noticed by amateurs and cultivated.

The Catawba should be adopted by all about commencing the business, and the others made subjects of experiment. The wine is pleasant, of a delicate straw color, mild, and keeps without any foreign mixture. It needs neither sugar nor alcohol. Several excellent specimens have been made in our vicinity. Mr. Vaulx succeeded in making a small quantity from his vineyard near Nashville, equal to any I have ever seen. He did not test its keeping qualities, but there is no reason to believe it deficient in that respect. Others at different points have commenced in earnest, and there seems to be a growing confidence in the success of the business. The experience of the writer so far, has been most encouraging. My vintage this year, although necessarily small, from vines only four years old, was at the rate of 400 gallons to the acre. The wine is of excellent quality, with the proper amount of saccharine strength to ensure its keeping.

In order to embark in the vine culture, less preliminary knowledge is necessary than would be at first supposed. To commence aright is the main matter, and that is easily learned. As the vine grows year by year, ample time is given to any one to make themselves acquainted with the training, and other subsequent processes of wine making. A few plain directions to beginners will close this article, already too long perhaps for service.

The ground should be well prepared in the fall or early winter, to receive the benefit of the freezes. Undoubtedly, the best means of preparing the ground is by trenching at least two feet in depth. By trenching is meant simply, what its etymology would import, *cutting up* and loosening the *whole* of the ground, into open ditches, like military defences. The entire surface of the earth is to be loosed up if possible, and that is best performed in the following manner:

Begin at one side of the ground to be prepared, and lay off a line the whole length about three feet wide. Dig and throw the dirt out carefully from the side of the proposed vineyard, until you have a clean ditch, at least 18 to 20 inches deep, and if two feet the better. Lay off then another land by the side of the first, and of the same width. Dig it out, throwing all the dirt into the first ditch until your second one is completed to the same depth. Ditch No. 1 will then contain the soil taken from ditch No. 2 in an inverted form and will be slightly raised. Lay off another land in the same way, dig and throw the soil into ditch No. 2, and so on until you go over the whole ground. Your last ditch will of course be open, which you may leave so or fill as you please. The dirt from your beginning ditch can be scattered over the bed. That is trenching, and decidedly the most perfect mode of preparing either vineyard or garden. No one should be satisfied with any less effectual mode, if this be at all possible. It seems slow, and is more expensive, but in the end it pays better. One hand beginning now will trench one acre before spring, which acre will be increased there-

by threefold in value. I omitted saying that a hill-side should be selected if you have it, and a friable calcareous soil, if mixed with gravel the better.

For those who cannot trench, a large plow, followed by a subsoil plow, well used, is the next best. It may do, but not so certainly, and the vineyard will not be so good, unless in very favorable soils. It fails to throw the rich surface soil to the bottom, a very important part, as it is not favorable for the roots to run near the surface. They should be tempted down.

Where time and opportunity fails to allow the use of the subsoil plow, it may still be worth while to begin with the use of the common plow alone, run as deep as possible. It is not a very hopeful plan, but by subsequent trenches between the rows, it may do partially, and in favorable localities, yield a remunerating crop. For those anxious to begin, it is better than nothing, and may afford a start to be improved upon afterwards.

During the winter the slips or one year old roots may be obtained, and they should be set out not more than 6 feet by 4 apart, leaving the top eye just level with the surface of the ground, and slightly covered with light earth to prevent being killed by the sun. Two slips should be set in each hole to allow for one failing. If both grow, one may be removed next springs for replanting missing spots. If roots are used the top should be trimmed away to one or two good eyes. The proper time for planting is after the spring has fairly opened, say from the middle of April to the middle of May.\* The first years's cultivation is only to keep them free of weeds. No trimming, training or staking will be needed, it will be hard if the beginner does not learn in the next twelve months how to proceed.

The preparation of the ground let me repeat, is of the highest importance. You cannot have a vineyard without it, any more than you can have a house without a foundation. If you wish to throw away your vines, and what little trouble you do take, let your ground alone until spring—snatch a little time from your farm or garden—dig a hole in the hard ground where you want your vine to be, just big enough to get it in, and "let it rip." After a few years, folks will hear you talking that vines do no good in this country.

After all, the best and most compendious piece of advice to a beginner, is to lay out a dollar or less in the purchase of Mr. R. Buchanan's Treatise on the Vine Culture. It is an eminently practical book, by a practical man, adapted precisely to the wants of those who wish minute and detailed instructions.

To those who would like to enquire further concerning this subject, the writer cheerfully proffers, if addressed, to give them the benefit of all he knows. Satisfied of the importance of this branch of industry, in every sense, he is not likely to be averse to a little trouble now and then, in its service.—*Tennessee Farmer & Mechanic.*

#### VINEYARDS AND ORCHARDS IN SOUTH CAROLINA.

Dr. RANDALL CROFT writes the editor of the *Greenville Patriot and Mountaineer*, as follows:

*Mr Editor:*—We have just returned from paying a Christmas visit to my brother, who resides on Shaw's Creek, four miles from Aiken, where we spent three weeks delightfully; and with the best of friends, the choicest fare, and plenty of good cheer, the time passed so quickly away, that we regretted when our own business required our presence at home again. While there, we frequently saw our friend and townsman, Mr. Pinck-

ney McBee, who is spending the winter at Aiken for the benefit of his health. We were much pleased to see the improvement in his appearance and spirits, which a few weeks sojourn there had effected. I also met another of our Greenville friends, Maj. Easley, who is there for the same purpose. He is looking better, and I hope will soon be restored to health. How fortunate are we to have in our own State a town like Aiken, where the sick and afflicted can resort with confidence in the winter, and with impunity in summer. It is a delightful place, and we were gratified to see how much it had increased in size. It has been much frequented by consumptives, and those suffering from pulmonary diseases, from the Northern States, during the winter, and those flying from the diseases of the city and the fevers of the lower country during the summer months.

There are two fevers raging to a very considerable extent in that section—the grape and the peach fever. And you can form no idea of the *wine excitement* existing there at this time; neither are we able to describe it. We are not certain that we have not caught the infection. Every one is either planting or preparing to plant him a vineyard. The vine has been cultivated very successfully for several years by A. de Caradeuc and Dr. McDonald. I spent a very delightful day with Mr. de Caradeuc, from whom I received much information and instruction on the growing of the vine—the proper location of the vineyard, and the different varieties of grapes which are best suited to our climate.

For the first time in my life, I saw a regular wine press. You are aware that wine is only the juice of the grape expressed, and allowed to ferment, when it is drawn off and put into casks for a year or so, and then bottled. It should receive no alcohol. I tasted, at Mr. de Caradeuc's and Dr. McDonald's, a delightful Claret, an excellent, still Champagne, and a delicious Madeira wine; also a very fine brandy. These gentlemen may be said to be the pioneers of vineyards in South Carolina, and are rendering much essential service to the State. They make some seven or eight hundred dollars to the acre; and they are doing this on lands which twenty years ago no one would pay taxes on.

Our rice planters do not clear one hundred dollars to the acre on lands that are worth from one hundred to two hundred dollars per acre, while they are realizing six or seven hundred dollars. Their places are perfectly healthy for whites and blacks, while the rice lands are healthy for neither.

The grape is, generally speaking, a pretty sure crop. Dr. McDonald has some thirty or forty acres in vineyard, and Mr. de Caradeuc sixteen or eighteen. There have been others in South Carolina who long ago attempted the culture of the grape. Mr. Herbermont, Mr. Guignard, Mr. Maverick and others, all of whom failed. The stumbling block to those who first made the attempt to raise wine, was the cultivation of the foreign grapes. It is now reduced to a certainty that they will not do, but that our native grapes are eminently successful. Those which Dr. McDonald and Mr. A. de Caradeuc plant are the Warren, the Isabella and the Catawba. The Warren produces the best Madeira, a wine resembling it in character; and it is the vine which these experienced gentlemen prefer. They also plant largely of the Isabella, and the Catawba. These are all native, and no doubt will do well over a great portion of our State; and it is our opinion these and also the Scuppernong will do well in Greenville District, and we think that the time is not very distant when we will see a great portion of our hill-sides covered with vineyards making sixty thousand dollars to the hundred acres, or six hundred dollars to the acre, which is only a moderate estimate, according to the calculations of those who are realizing that, and a good deal

\*From four to eight weeks earlier than this in the more Southern States.—Eds. So. CULT.



more, on lands much thinner than our poorest mountain ridges. The best location for a vineyard, is a hillside fronting the east, so as to have it protected from the evening sun. The approved distance of planting the vines, is in rows of eight feet in width, and four feet apart in the rows. The grape produces from two to four hundred gallons of wine to the acre.

Is it not strange that our State Agricultural Society has not taken a more lively interest in vineyards, grapes and vines, than it has? We would think a premium offered for the best of each of those productions, would elicit much light on the subject. We asked Mr. de Caradeuc why Dr. McDonald and himself did not exhibit their wine and brandy at the Fair, and he observed he would do so when there were premiums offered for them. We are credibly informed that both Mr. James Rose and Mr. Henry Gourdin, (gentlemen distinguished for their business habits, their elegant hospitality, and their great judgment on wines,) have passed considerable encomiums on Mr. A. de Caradeuc's Warren wine. Major Bausket (a near neighbor of my brother's, who is not only one of the best lawers of our State, but one of the closest observers) has just returned from a trip up the Mississippi river as high as Cincinnati, gave us a glowing and graphic description of their vineyards. He says every acre that is planted in the approved vines, is valued at one thousand dollars per acre. Mr. N. Longworth, of Cincinnati, who has not only built a wide reputation, but a mammoth estate by his vineyards, has done it mostly by his Catawba grape. Thirty years of his life have been devoted to the culture of the grape, and for fifteen years he tried the foreign varieties, on which he failed, as the rest did who tried them, and sunk one hundred and twenty thousand dollars. He then turned his attention to the native grapes of the country, and in the space of sixteen years has not only retrieved his losses, but has amassed seven or eight millions of dollars. His taxes the last year amounted to eighty-five thousand dollars. What golden harvests must he not reap from his still and sparkling Catawba? We have frequently drank it, and so have you. It is a delightful Champaigne, selling at two dollars a bottle, or from six to eight dollars a gallon. We asked the Major what he thought of the grape culture? His answer was: I can see no possibility of its failure.

What an adjuvant the production of light wines in our State will be to the cause of temperance! The Temperance Societies, led and conducted by their great chief, our worthy friend Judge O'Neal, have for a long time fought a good, true, and steady fight, against intemperance. A powerful ally has now appeared in the field. They can now do as old Leatherstocking did when the Prairie was on fire—"Let fire fight fire." The experience of all Europe has proved that a wine making country was never much given to intemperance. With the expressed juice of the grape, the spirits are elevated, and the skin filled before reason is dethroned. With distilled or alcoholic liquors, the reverse is the case. But what is this to me or to you, Mr. Editor? We are digressing from our subject.

We would advise all of our friends to plant out a few of the Catawba, and a few of the Isabella, Warren and Scuppernon vines. These are the most approved grapes for making wine, which will keep well. The Burgundy, as a table grape, is thought the most of about Aiken. All these, however, are fine. By planting now any one, in a year or two, if he desires to establish a vineyard, could have a good number of cuttings, and should they not they would have an abundance of table grapes. There is such a great demand at this time for the cuttings, and roots, that it is very difficult to procure them in numbers. My brother intended planting out fifty acres this spring, but will not be able to get the cuttings. The Warren is the most difficult to obtain. From description, I think it must

be the same which we call in Greenville the "Bunch-clusters."

We also paid a visit to our mutual friend, Mr. Wm. Gregg, of Kalmia, whom we esteem as one of the greatest men of our State, in head and heart. He is the father of the largest and best conducted factory in the South, the Graniteville Factory—one that our State has just reason to be proud of. On entering his library, we were pleased to see in a neat frame an excellent likeness of yourself. We rode with Mr. Gregg all over his extensive orchards, and found him courteous, kind and communicative. He is the great fruitist of the State, and deserves much credit for making those barren sand hills more lucrative than the most fertile rice or cotton lands of our or any other State. From some thirty or forty acres in peaches, he last year cleared and realized \$5,500. He was busy planting out some forty or fifty acres more, and should the year after next be a good fruit one, we verily believe he will make twelve thousand dollars net from his peach orchard alone, in the planting of which great judgment and taste are evinced.

#### PREPARATION OF GROUND FOR PEAR TREES.

For each row of trees dig a trench two and a half feet deep by five wide. Fill up the trench to the depth of 1 foot with small and broken stones. The ground should be so selected that there shall be a gradual descent from one end of the trench to the other, to carry away all water that may find its way to the bottom of these broken stones. For the compost to fill up the remaining one and a half feet, use turf from the road-side, or old pastures, spading to the depth of 3 or 4 inches—the same having been thrown in heaps till rotten, and mixed with some lime. Old lime rubbish, such as plaster from torn down houses, and old brick-bats, form an admirable admixture. A little leaf mould added, is also beneficial. When the trench has been filled with this compost, (putting in an occasional layer of the best of the original soil with it) place the trees selected for planting, on the prepared soil, spreading out the roots carefully and covering them with the finest of the soil. Conclude the operation by mulching with half rotted manure. An excellent mulching and shading can also be provided by a top layer of brush or small limbs, cut up so as to lie in immediate contact with the soil. In the absence of sufficient rains, the mulching should be occasionally well watered during the first season, following the planting. The distance between the trees in the rows should be 8 feet for dwarf trees, or 15 feet for standards. Alternating a standard with a dwarf, each distant from the other 10 feet, is a very good plan, removing the dwarf when the standard shall require all the room. The rows should be distant apart 12 feet for dwarfs, or 25 feet for standards.—*Ohio Valley Farmer.*

#### SEED OF THE SWEET POTATO.

TO JOHN BAUSKET, ESQ.—*Sir*:—Long ago you offered a reward for the seed of the Sweet or Carolina Potato. Doubtless it was incredulity of the existence of such seed that prompted you to offer the reward. There were a great many blooms of the Potato in the fall of 1855, and, looking carefully for seeds, (in the calyx, of course) I found some three or four of them. Storing them securely away in a paper and labeling, I deposited them in my *portmanteau* and kept them there until spring; when I planted them in my garden, where there were no other potatoes near, and set up sentinel sticks around as a guard. After a time a little morning-glory-looking plant peeped out from the ground, and you may imagine the relief it afforded my suspense, when I beheld it taking on the well known features and marks of the not-to-be-mistaken Yam Potato. By cutting the vines and planting them I made three or



four hills of potatoes, yielding a double handful of respectable tubers.

My only apology for addressing you is, *Eureka!* I intend planting the tubers thus raised the coming season, and expect to send you a good large Yam for a potato pone, So that you may expect the grand proof of the pudding—"the chewing the bag."

Respectfully,  
E. J. MIMS.

*La Pine, Edgefield District, S. C., Feb., 1856.*

#### CHINA BERRIES AS FOOD FOR ANIMALS.

EDITORS SOUTHERN CULTIVATOR—For the information of M. T. McGEHEE, of Mount Elba, Ark, I would state that I have from childhood been well acquainted with the China Tree and its fruit and have always considered the berries of no use as food for domestic animals. The China Berry and leaves, however, I know to be an excellent manure,

A. McL.

*Clayville, Ga., 1857.*

### Domestic Economy and Recipes.

**TO STOP BLEEDING FROM THE CAVITY OF AN EXTRACTED TOOTH.**—Noticing the case of Mrs. Locke, who bled to death in consequence of the extraction of a tooth, Dr. Addington, of Richmond, Va., says he never fails to stop the bleeding by packing the alveolus from which the blood continued to trickle, fully and firmly with cotton moistened in a strong solution of alum and water. He cured a brother physician in this way, whose jaw had bled for two weeks.

**RECIPE FOR MENDING BROKEN CHINA.**—Take a very thick solution of gum arabic in water, and stir into it plaster of Paris until the mixture becomes a viscous paste. Apply it with a brush to the fractured edges, and stick them together. In three days' the article cannot again be broken in the same place. The whiteness of the cement renders it doubly valuable.

The *Boston Medical Journal* mentions the following simple and economical apparatus for overcoming bad odors, and purifying any apartment where the air is loaded with noxious materials. Take one of any of the various kinds of glass lamps—for burning camphene, for example—and fill it with chloric ether, and light the wick. In a few minutes the object will be accomplished. In dissecting rooms, in damp, deep vaults where drains allow the escape of offensive gases, in outbuildings, and in short, in any spot where it is desirable to purify the atmosphere, burn one of these lamps. One tube charged with a wick is sufficient.

**TO MAKE STARCH POLISH.**—Take 1 oz., Spermaceti, and 1 oz., White Wax; melt, and run into a thin cake on a plate. A piece the size of a quarter dollar, added to a qt of prepared starch, gives a beautiful lustre to the clothes and prevents the iron from sticking.

**BLUEING FOR CLOTHES.**—*Better and cheaper than Indigo.*—Take 1 oz. of soft Prussian Blue, powder it, and put it in a bottle with 1 quart of clear rain water, and add 1-4 oz. of Oxalic Acid. A teaspoonful is sufficient for a large washing.

**TO IMPROVE PEAR TREES AND THEIR FRUIT.**—When planted in a clay soil, mix sand and lime together at the rate of one part of the former to two of the latter, and apply a bushel of the mixture around each tree after the soil has been hooked up and loosened. Broken bones are also a good manure for Pear trees.—*Ohio Valley Farmer.*

## Advertisements.

### FRUITLAND NURSERY---A CARD.

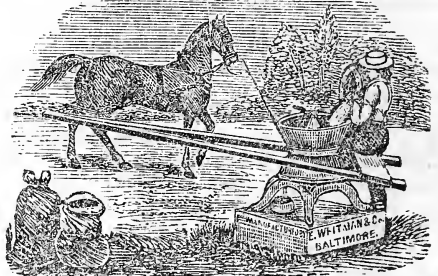
THE subscriber would respectfully inform his customers and friends that the unprecedented demand for trees, added to the severity of a portion of the winter, and the premature coming on of spring (15th of Feb.) has prevented him from filling many late orders with which he has been favored. His stock for the next year, (1857-8) however, will, he hopes, be amply sufficient to meet all demands, and he earnestly solicits that orders be sent in as early in the fall as possible. Land intended for orchards, next year, should be *deeply plowed*, well manured, and cultivated in some hood crop, like corn, cotton or sweet potatoes. For further particulars see Descriptive and Priced Catalogue of Fruitland Nursery, sent *free of postage* to all applicants. Address

D. REDMOND, Augusta, Ga.

"Fruitland Nursery," Augusta, Ga., March 1, 1857—if

### YOUNG AMERICA CORN AND COB MILL.

The Cheapest and Best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

JOHN & THOS. A. BONES.

March—if

### GARDEN HAND PLOWS.



THESE well known and most useful little PLOWS, worked by hand, with six different working irons to suit such work as may want to be done, attached to each at pleasure, will be found at all the Hardware Stores in this city, by wholesale or retail.

March 57—2t

B. PICQUET.

### SEED OF FINE LONG STAPLE COTTON

For Sale.

THIS COTTON, with the subscriber, has proved early and productive. Price \$5 per sack of 2 bushels, delivered in Beaufort on board the Charleston and Savannah steamboats, and less if taken in bulk from the plantation.

March 57—1t

ROBT. CHISOLM,  
Beaufort, S. C.

### PURE AND VALUABLE SEEDS.

HAVING experienced the great difficulty in obtaining reliable FLOWER SEEDS, suitable to the South, I have raised a small quantity, which I have placed in the hands of D. B. Plumb & Co., Druggists, in this city, for retailing. I would particularly draw the attention of the ladies to the splendid collection of Stock Gilly Flowers, Ten Weeks Stocks, Double Wall Flowers, and German Asters.

Dec 56—if

ROBERT NELSON,  
Augusta, Ga.

THORBURN'S WHOLESALE PRICED LISTS of Vegetable, Field, Tree, and Flower SEEDS for 1857 will be mailed to Dealers enclosing a three cent stamp.

March 57—1t.

J. M. THORBURN & CO.  
15 John street, New York.

## "SORGHO SUCRE," or CHINESE SUGAR Cane:

ITS History, Proper Method of Culture and Manufacture—Value as a Syrup or Sugar Making and Fodder Producing Plant, &c., &c., including Reports of many Practical Experiments in the South and other portions of the United States. Compiled from various authentic sources, by D. REDMOND, Assistant Editor of the *Southern Cultivator*.

Copies of the above Pamphlet and PURE SEED furnished by PLUMB & LEITNER, Augusta, Ga. See their advertisement in another column.

### FRESH GARDEN SEEDS.

WE are now receiving our supply of choice GARDEN SEEDS, which we warrant to be GENUINE and of the crop of 1856. Those who purchase our seed may rely upon getting a fresh article as we keep no OLD seed on hand.

Merchants supplied at a liberal discount.

D. B. PLUMB & CO.,  
Broad-st., Augusta, Ga.

Nov56—4t

### AUGUSTA NURSERY.

Extensive Collection of Selected Roses and Southern Raised Fruit Trees.

F. A. MAUGE would respectfully inform the amateurs of F. Roses, that he has now a superb collection of new and rare varieties, which he will be happy to supply such as may desire them. His prices to Nurserymen will be as low as those of any Nursery at the North, and his Rose Bushes will be generally of a larger size. He has also made recent additions to his stock of FRUIT TREES, and can now supply fine sorts of the following varieties: Apples, Pears, Quinces, Peaches, Nectarines, Apricots, Plums, Cherries, Soft Shell Almonds, English Walnuts, and Hazelnuts.

Also, GREEN-HOUSE PLANTS, such as Camellia Japonica, Orange and Lemon Trees, &c., and hardy Flowering and Ornamental Shrubs. Orders from the country will be promptly attended to, and Trees and Shrubs carefully packed and directed.

Osage Orange Fruit for sale at \$1 per dozen.

Catalogues of Roses and Fruit Trees will be sent gratis, to all post-paid letters. Address F. A. MAUGE, Augusta, Ga.

Dec56—4t

### LANDS IN SOUTH WESTERN GEORGIA For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany, y 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

W. W. CHEEVER,

Albany, Ga., Oct. 10th. 1856.

Nov56—4t

### COTTON SEED.

1,000 BUSHELS—Olive—very pure. Price fifty cents a bushel at my gin, or forwarded to cash orders at fifty cents per sack extra. Also, 1,000 bushels "Crowder," equally pure and very productive, an early opener, growing and making till late. The young bolls do not dry up on the stalk, nor does it shed as other varieties do. Address DR. A. W. WASHBURN,

Yazoo City, Mississippi.

Nov56—6t

### STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Somerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy 85 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARPS, in foal by "Nebraska;" a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

JAMES R. FERGUSON,  
Memphis, Tenn.

June56—6t

## "FRUITLAND NURSERY," AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has just issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH, in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc., forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing D. REDMOND, Augusta, Ga.

Dec56—4t

### BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address R. PETERS, Atlanta, Ga.

Nov55—4t

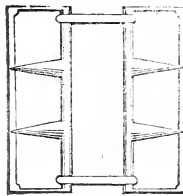
### GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address WM. N. WHITE,

May56—4t

Athens, Ga.

### PATENT BUCKLE.



I DESIRE to sell the Right of making and selling the new DOUBLE JOINTED PATENT BUCKLE, and will thank fully receive offers for it until the 1st day of June next. The Buckle is the best that has yet been invented, one answering for the whole wardrobe and should be made of gold or silver. The Right of one State is worth a fortune. I will sell the Right of one or all the States together.

Gum Creek, Dooly Co., Ga., Nov. 24, 1856.

WM. SLADE

Jan57—5t

### AUGUSTA SEED STORE.

(Nearly opposite the United States and Globe Hotels.)

THE Subscriber has received and will continue to receive throughout the season, his stock of genuine and fresh GARDEN SEEDS—crop of 1855. The usual deductions made to country Merchants.

GIANT ASPARAGUS ROOTS, White and Red ONION SETS, White and Red CLOVER, LUCERNE, BLUE GRASS, &c., &c. Jan57—3t

### A. LONGETT.

DEALER in FERTILIZERS, No 34 Cliff street, New York. PERUVIAN GUANO No. 1—Government brand and weight on each bag. COLUMBIAN GUANO, imported by the Philadelphia Guano Company. SUPERPHOSPHATE OF LIME and BONE DUST. Jan57—3t

### CENTRAL RAILROAD.



#### CHANGE OF SCHEDULE.

ON and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

BETWEEN SAVANNAH AND MACON.			
Leaves Savannah Daily at.....	5.00 A. M.	and	12.15 P. M.
Arrive in Macon ".....	2.15 P. M.	"	1.00 A. M.
Leave Macon ".....	11.45 A. M.	"	9.30 P. M.
Arrive in Savannah ".....	10.45 P. M.	"	7.30 A. M.
BETWEEN SAVANNAH AND AUGUSTA.			
Leave Savannah.....	12.15 P. M.	and	8.30 P. M.
Arrive in Augusta.....	8.45 P. M.	"	5.30 A. M.
Leave Augusta.....	6.00 A. M.	"	4.30 P. M.
Arrive in Savannah.....	1.30 P. M.	"	10.45 P. M.
BETWEEN MACON AND AUGUSTA.			
Leave Macon.....	11.45 A. M.	and	9.30 P. M.
Arrive in Augusta.....	8.45 P. M.	"	5.30 A. M.
Leave Augusta.....	6.00 A. M.	"	4.30 P. M.
Arrive in Macon.....	2.15 P. M.	"	1.00 A. M.

BETWEEN SAVANNAH, MILLEDGEVILLE & EATONTON.			
Leave Savannah.....	5.00 A. M.		
Arrive in Milledgeville.....	2.45 P. M.		
Leave Macon.....	11.45 A. M.		
Arrive in Eatonton.....	5.00 P. M.		

W. M. WADLEY, Gen'l Superintendent.  
Savannah, Ga., Oct., 12, 1855. July56—4t



## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embraces the Decid. Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vite; Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c., &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address [Dec56—tf] D. REDMOND, Augusta, Ga.

## GRADE CASHMERE GOATS.

FOR SALE, a few half blood BUCKS at \$30 each. Address [Nov55—tf] R. PETERS, Atlanta, Ga.

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four time yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of North-ern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next. RICHARD PETERS, Dec56—tf Atlanta, Ga.

## THOROUGH BRED NORTH DEVON AND Ayrshire Bulls.

I OFFER for sale a few choice young BULLS, bred from superior Stock, with full pedigrees. For particulars, address me at No. 23 Fulton street, New York City A. M. TREDWELL, Importer, Breeder and Dealer in North Devon and Ayrshire Cattle. Residence Madison, Morris county, New York. Dec56—3mo

## CHINESE PROLIFIC PEA!

### THE GREAT FORAGE PLANT AND RENOVATOR OF SOUTHERN LANDS!!

THIS very remarkable new Field Pea is by far the most valuable and productive variety ever introduced. It is well adapted to poor land, yielding at least three or four times as much as any of the common varieties, and producing a growth of vine almost incredible. It grows in clusters of from 12 to 20 pods, each pod containing 10 to 12 peas, and is of course far more easily gathered than any other. The vine never becomes hard, but is soft and nutritious from the blossom to the root. It is greedily eaten by stock, and the Peas are unsurpassed for the table in delicacy and richness of flavor.

We subjoin the following extracts—the first from Ex-Governor Drew, of Arkansas, and the remainder from several well known citizens of South Bend, in the same State:

FORT SMITH, Ark., December 20, 1856.

Dear Sir:—The evidences afforded me while at your house by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is beyond anything in the way of a great yield I have ever known.

I think I am within bounds when I say the yield, in pea and vine, is at least five times greater than any other pea—clover, or grass for hay. And the waste peas were equal to any other full pea crop; and from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr. Wm. F. Douglass, has done well in making arrangements for the extended culture of this invaluable Pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands than guano or any other application to the soil, while, at the same time, the yield is likely to be as great on such lands as on the rich bottoms of Arkansas.

Respectfully your obt. serv't,

THOS. S. DREW.

To ROBERT H. DOUGLASS, Esq.

Dr. Goree, of Arkansas, estimated the yield in Peas or Hay at "five times that of any other Field Pea he had ever seen planted." W. B. Lee, Esq., says, he "has never seen anything to equal it," and that it should "supersede the use of every other," and the following certificate settles the question of its value for Hay:

"We, the undersigned, saw "that pea-vine," and think, after the peas were gathered, that the vine would have made as much hay as a stout man could carry; it covered a space of ten or twelve feet in diameter, and lay from one foot to eighteen inches deep."

WM. C. MEEKS,  
B. W. LEE.

South Bend, Ark., Sept., 1856.

Col. J. B. L. Marshall, Assistant Engineer on the Little Rock and Napoleon Rail Road, says:

"If the Southern Farmers will give it a fair trial, they will find it to be the greatest Pea both for table use and for feeding stock, now known. They fatten hogs faster than anything I have ever tried. On the 1½ acres Mr. Douglass had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of ground of the same size," &c., &c.

For further particulars, see Circulars furnished gratis by the Agents.

We are prepared to send out a limited quantity of these Peas, put up in cloth packages to go by mail. They will be forwarded, free of postage, to any address on receipt of \$1.30, or otherwise at \$1 each. Current funds and postage stamps will be a satisfactory remittance. Our names will be printed on all packages of the genuine seed.

Any one not perfectly satisfied with the Pea will have his money returned. Address (with plain directions for mailing)

PLUMB & LEITNER, Augusta, Georgia.

\*.\* Dealers in Seeds and country merchants can be supplied, to a limited extent, at the usual discount, if their orders are forwarded immediately. Feb57—tf

## FRUITS FOR THE SOUTH!

### "FRUITLAND NURSERY," AUGUSTA, GEORGIA.

THE Subscriber takes pleasure in offering for fall and winter planting, choice TREES of the following varieties of Fruits, all of which have been found to be well adapted to the South:

APPLES—a succession, ripening from May until December, and keeping until June, mostly of Southern origin, and many but recently introduced to the public—price, 25 cents each.

APRICOTS—such fine varieties as Moorpark, Breda, Hemskirke, Peach, &c., &c.

PEACHES—the choicest collection ever offered, including in addition to all the best Northern and Foreign sorts, a splendid variety of new Southern Peaches not found in any other Catalogue. The present year's stock of Peach trees is quite limited in number, so that early orders are advisable. Price, 25 cents.

NECTARINES—Boston, Stanwick (new), Hunt's Tawny, New White, and all other first class sorts.

PEARS—DWARFS and STANDARDS—a selection of the very best, recommended by the American Pomological Society, and most of which have been fully tested in the South.

PLUMS—all the largest and best varieties.

CHERRIES—Twenty or more select kinds, worked on the Mahaleb Stock, as low Standards or Dwarfs—the proper form for the South.

GRAPES—fine rooted plants of the Catawba, Isabella, Scuppernong, Warrenton and other native varieties, for the table and for wine-making. Price, 25 to 50 cents.

FIGS—strong rooted trees of 6 or 8 of the best kinds, furnishing a successional crop throughout the entire season. Price 25 to 50 cents.

STRAWBERRIES—a selection from 35 or 40 varieties, including Hovey's Seedling, Longworth's Prolific, McAvoy's Superior, and all the new and desirable sorts. Price, \$2 to \$3 per hundred.

POMEGRANATES—strong rooted trees of the sweet and sub-acid varieties. Price, 25 to 50 cents.

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## SOUTHERN CULTIVATOR,

## A MONTHLY JOURNAL.

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume Commences in January, 1857.

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## DIOSCOREA BATATAS—NEW CHINESE Potato—or Yam.

THE experience of another season in the cultivation of this new esculent, warrants us in confirming all we said in relation to it last year. Wherever it has fallen into the hands of judicious cultivators, and received the care necessary to its full development, the result has been entirely satisfactory in all respects; and it may confidently be reaffirmed that of all the esculents proposed as substitutes for the diseased potato, the Dioscorea Batatas is certainly the only important one. We can now supply small roots from 4 to 9 inches long, carefully packed for transport at \$3 per dozen; and small seed tubers (such as we sold last year) at \$1 per dozen to \$7 per hundred; these latter can be sent by mail. Description and directions for culture furnished with each package. Where practicable, parties are invited to examine the roots before purchasing, as we have them constantly on view.

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# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV.

AUGUSTA, GA., APRIL, 1857.

NO. 4.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH---(APRIL.)

#### THE PLANTATION.

**Corn.**—After a premature spring, in February, we have been visited by a second winter, which has retarded all operations on the Plantation, and few persons in this region have even commenced planting Corn up to the present date (March 18). It is absolutely necessary, therefore, that the utmost energy be called into requisition and that not a moment be lost, whenever the ground is in proper condition. *Mamure heavily* and plow *deep*—use the best and heaviest seed you can obtain, and let your after-culture be of the most thorough character, working often and shallow, so as to *break no roots*. More suggestions on this subject hereafter.

**Cotton.**—Having properly started your corn crop, push forward the planting of Cotton, without delay. It is very important to get an early stand, and much may be effected in this way by throwing up the beds light and dry. See the various hints and suggestions of our experienced correspondents, in previous volumes and numbers. See also the new "*Cotton Planter's Manual*," of our friend Col. TURNER. It may be had from GEO. A. OATES & BRO., of this city, or from C. M. SAXTON & Co., of New York, at \$1, postage pre-paid.

**Sweet Potatoes.**—Plant your main crop of "sets" and "draws" this month. Try the *level* system heretofore described in our journal. Reason and experience both teach its superiority. But, if you plant in hills or ridges, plow the soil *very deep* and throw them up broad and flat on the summit so that they may catch and retain as much moisture as possible. Potato "draws," or any similar plants may be safely set out even in dry weather, by dipping the roots in a thick batter of black woods-mould, or surface soil and water, as heretofore described.

**Irish Potatoes,** if not already planted, must be put in immediately, or it will be too late for a summer crop. They should be dropped 10 inches apart in 3 feet drills, and covered with a thick layer of partially decomposed pine-straw or leaves.

**Chinese Sugar Cane** for syrup, and to supply an abundance of seed for future use, should be planted as soon as the weather becomes settled and warm—a little after Corn planting time.

The **Chinese Prolific Pea** is also worthy of a fair trial, as it comes to us very highly recommended by highly respectable and *disinterested* men. We shall plant at least 50 acres of it the present season, if we can reserve seed enough for that purpose.

Common **Corn** and **Chinese Sugar Cane**, for cutting green and for winter forage, should also be sown plentifully during the present and the next month. Sow, also **Egyptian Millet**, but do not let it come near the **Chinese Sugar Cane**, or you will ruin the latter as a sugar plant. Early crops of **Cow Peas** may also be sown. For fodder, we prefer the drill; but if intended to turn under for manure, sow the Peas broadcast.

#### THE KITCHEN GARDEN.

Attend to all work not performed last month, without delay. Set out all **Cabbage** plants, you may have, and sow more Cabbage seed to head in the summer; **Flat Dutch** is the best. Thin out **Turnip**, as soon as they have four leaves, and sow more Turnip seed; **Early White Dutch** and **Red Topped Dutch** are the best for spring use. Also sow **White Norfolk Turnip**, it will grow larger than the former and succeed them. If you have not already sown **Onion** seed (black), do it at once; they will come into use in the latter part of the summer, when all that were raised from sets or buttons are gone. If you did sow **Black Onion** seed last fall, it can now be transplanted. Sow **Carrots**, **Beets**, ("Extra Early" is the finest) **Parsnips**, **Salsify**, **Lettuce**, **Radishes**, **Thyme**, **Parsley**, and **Rape** (for early greens.) The **White Belgian Carrot** stands our hot summers best. Also sow **Mangel Wurtzel**, it will be found very good for late use, when the other beets are gone. Plant all in rows 15 inches apart. Sow, also, a little spot with **Celery** and protect them from the sun. When Cherry trees are in bloom plant **Snap Beans**; **Early Valentine** is an excellent variety, and we are inclined to recommend it in preference to all others. When Apple trees are in flower, plant **Squashes** (**Scallop Squash** is the best) in hills 3 feet apart; also, **Cucumbers** and **Muskmelons** 6 feet apart; the **Nutmeg** and **Citron Melons**





ness to hills and mountains covered with snow from four to eight months in a year, adequately accounts for the chilling "northerners" of Texas, and the like changes of temperature, only less disagreeable in Georgia. Such a climate has somewhat peculiar agricultural powers, and naturally develops some peculiarities in its most productive labor. These peculiarities are worthy of our best consideration.

The first European settlers in Georgia had a deep prejudice against negro slavery and hoped to prosper better without it, than did the Carolinas and Virginia with it. But the climate of all the southern part of the province was and is adapted to the production of tropical plants in the cultivation of which white laborers were found less valuable than blacks on many accounts: and slave labor was finally introduced, and established by law, more from necessity than choice. Nor have the recent progress in agricultural science, and the unprecedented exodus of emigrants from Ireland, been sufficient to introduce Irish upon the now deserted sugar plantations of Jamaica. While millions of industrious immigrants have settled in the Northern States and Canada from Europe, the planters of the British West Indies are without laborers, and trying hard to remedy the loss of their slaves by the purchase of Coolies from China.

These facts are instructive, as proving how much climate has to do with systems of labor, and the distribution of laboring people.

Something like half of the year, white persons can labor on plantations here as well as in any country, even in our most Southern States. This fact is important; for as whites become acclimated, and accustomed to Southern field work, and as their numbers augment much faster than blacks, it is obvious that they will extend their industry to the production of all the staples of the South. This being a natural result of an increase of population, and the inevitable concentration of negroes upon large estates, as the country grows older, it is time to cultivate a good understanding between both kinds of agricultural industry. They are not antagonistic, no more than the facts that one man eats bread and wears a shirt make him the natural enemy of every other man who does likewise. Let all be industrious who will, that all may have a plenty of both food and raiment. We need a more liberal and patriotic feeling to encourage alike both white and colored people to create more than they consume, that the wealth and general improvement of the South may excite the admiration of mankind. Advantages of climate and soil avail nothing unless intelligence and industry use them for wise purposes. The most valuable natural resources are often sadly abused, or misused, by an over desire to command at once benefits which properly belong to future years. It is the part of wisdom to look ahead, and see the condition of things, and especially of human society, after one or two generations have come and gone, cultivating the land as we cultivate it, and illustrating in their labor, morals and institutions, the principles we now teach by precept and example. Partial and one sided views of grave subjects mislead thousands to the serious injury of themselves and their posterity. Man ever mis-

takes his true interest when he fails to regard the interests of others dear to them as his is to himself. The true policy is to harmonize all interests by carefully avoiding extremes in every direction. The world was made for all of woman born, not for a favored few.

Time, climate, and the natural increase of the human family, to say nothing of the wonderful progress of science and art, are making rapid changes in American society. The census of Missouri, which has just been taken, indicates very forcibly the change in agricultural labor now going on in that farming rather than *planting* State. It has a total population of 912,306, of whom 819,593 are whites, 2,652 free blacks, and 89,530 slaves. The increase of the white population in six years has been over thirty-eight per cent., or 224,153, while the increase of the slaves has been 1,823 or only a fraction over two per cent. Two counties return no slaves: twenty counties return only 1,000 altogether, the highest reaching only ninety-six, and the lowest but eight. Up to the year 1850, the increase of the slave population in Missouri was rapid and remarkable, but the increase seems now to be as effectually checked there as in Delaware and Maryland. This fact, taken in connection with the comparatively small number there, and the great number of whites, seems significant of a change in the fortunes of the State. A letter from Jefferson city, the capital, dated February 6th, to the *St. Louis Democrat*, says:

"Large slaveholders are now selling out their lands in all quarters of the State, and preparing to move to Texas; others are offering their lands for sale, and negro buyers are traversing the State, buying up negroes for the Southern market."

Even in upper Georgia, where cotton is grown with less facility than nearer the sea coast, farming lands are almost given away by their owners who are anxious to remove with their servants to parts where the labor of the latter will pay better. The high price of cotton and sugar operates as a powerful attraction toward the land and climate best adapted to their production. View the planting interests of the South in whatever light we may, *progress* is its most remarkable feature. Soon the "sin of slavery" will be entirely forgotten, as the laws of climate and of human industry are studied and understood.

#### BENEFITS OF AGRICULTURAL READING— The Southern Cultivator.

*Dear Cultivator*—Not having penned an article for your columns for over two years, I have concluded to-day to send you a communication setting forth the many benefits that have inured to my home from agricultural reading, and as your paper stands, deservedly, foremost in nearly all Southern agricultural libraries, it will be understood that whatever of benefit or advantage I have derived is mainly attributable to its columns.

I am a farmer—raised so—and the son of a farmer, though my father was never very successful in this department, and consequently I grew up strong in the belief that all farming was but another name for drudgery, and that there was nothing enlivening or attractive connected with it. Thus, when I began, I embarked in it, not with any pleasure or delight, but because I could see no other good opening for a start in business. For several years, I plodded on in the old beaten track in which I had been reared, and seldom attempted any experiments or advances in my line of business. About this time, I became encumbered with an old crazy set of mills, which I thought, by carrying on in connection with the farm, would enable me to live, and thus my little force were

divided in the endeavor to conduct two different businesses while, in reality, I was not strong enough for either. The consequence was no manure at all was saved and distributed, my farming operations were always delayed to a late date in the season, while, of course, bad preparation of a heavy, wet soil produced bad stands; while careless and imperfect tillage, with negro discrimination in thinning, invariably gave me shorter crops than any other person on similar land.

I was thoroughly convinced that farming was a poor business, and I became so disgusted with my bad stands that I frequently would not go in the field for weeks, leaving its management entirely to negro supervision; while my mill was a source of perpetual disquietude. About this time (5 years ago), a copy of the *Southern Cultivator* fell accidentally into my hands. I there read of the pleasures of farming, and how, to succeed at all in it, that deep plowing and thorough preparation was indispensable. I subscribed for the paper and received 9 numbers at once. Their perusal opened my eyes entirely to new things. Gladness grew in me at the discovery—there seemed to be a latent joy awakened within me—and I determined to devote myself to the farm and its interests.

About this, time, a friendly freshet swept my old mill dam away, and I then resolved that I would spend no more time in mending it, but that I would apply my whole time and attention to farming. I had to begin under very discouraging circumstances. I had made no crop of any consequence, while my stock had been so entirely neglected that I was left without one breeding sow, and my empty barn and larder, together with the dilapidated condition of the fences and buildings were a frightful commentary on the industry and thrift of the owner. In fact, there never was an individual, unless he was the victim of disease or the devotee of Bacchus, with good land around him and help to cultivate it, whose fortunes presented so shattered an appearance as your unworthy servant.

But I began to husband manures, to haul cotton to gin for the seed, &c., and through the winter I amassed more manure than I thought could have been gathered on the place in 5 years.

I was a constant and ardent reader of the *Cultivator*. Through its wholesome influences I was buoyed up in the belief that farming would pay, and more than that, that there was a charm, a kind of cheerful halo thrown around one's home that was beyond comparison, and that could not be obtained in any other pursuit of life. Here I began imperceptibly to love home and studied how to adorn it. I now felt a new pleasure in watching the operations of Nature manifested in the vegetable economy, and I enjoyed those pure and lovely draughts of pleasure which none but the farmer ever experiences.

I commenced operations in deep plowing, but I found that I had no plow on my premises that I could induce to do work 6 inches deep. I bought one of Ruggles' Eagle Plows in New Orleans. Here I was assailed by a new disaster. My old neighbors assured me it never would do—that the very shape of the cast iron points would not let it in the ground. That objection, however, was soon dispelled, as the plow, with two good horses, turned up six inch furrows most beautifully.

I was then told by old veteran farmers that such plowing would ruin my land—that it might do in Northern soils, but was not adapted to mine. I asked how they knew it would ruin it? and I was assured that every person round said so. I inquired for proof. No experiment of the kind could be produced, so I went ahead, and was denounced and laughed at by the whole neighborhood.

But I knew my land produced almost nothing anyhow, and I was resolved to believe what your correspondents said. So I broke up deep and manured as well as I could.

Previous to that year, there were spots in my swamp land that had become so inexpressibly barren that you could find an acre in a spot that would not have made a bushel of corn. Upon these exhausted spots I expended most of my labor, and carted manure upon them until they were liberally supplied.

For the first time in my life I made a heavy crop of corn, heavier than I ever anticipated. And how often, while walking in that field, while the dark emerald maize waved its rustling banners round me, did I think of your journal that had taught me to love my occupation and had enabled me to make such a change in all around me! My neighbors were stumped and attributed much of the improvement to the turning loose the waters of the mill pond which had previously exerted a very pernicious influence on the land; but they still declared that I had got all out of the land, and that I could never make a good crop again.

I have made three crops since, and have been each time well repaid not only for all the manure put on but also for the deep and thorough plowing that I have ever since given. In the year 1855, the dryest season here extant, I made more corn on 10 1-2 acres of land than I made in 1852 off of 45 acres, and I would not have my creek bottom land broken up on the old skinning system if it was done for nothing.

In my next, I hope to be able to tell you what draining has done, and what underdraining will, I hope, do for me this year. Allow me, then, in conclusion, to say that the pleasure, happiness and instruction that I have drawn from the *Cultivator* could not be estimated by me in dollars and cents. May its shadow never grow less, but may it go on conquering error and prejudice till our own Sunny South may become as productive as her climate is beautiful.

Yours,  
Pike County, Miss., 1857.

ARISTANDER.

#### RAISING CALVES.

EDITORS SOUTHERN CULTIVATOR—Much depends upon the object we have in view as to the method which we adopt in raising our calves. It is very true and reasonable that the way nature points out for all animals is the most proper for them.

There are many modes of raising calves, and we suppose that every man thinks his plan the best. That the public may have some correct data from which to judge of this matter, it would be well to know the different methods—old and new—of managing calves, and then some degree of certainty may be attained.

There is a method in many parts of the States, of separating the calves from the dams at a day old; others let them remain with the cow until weaned—when the latter is the case, the calf sucks so frequently the cow's udder cannot be filled or distended, and consequently she gives so little milk it is seldom the calf is more than barely kept from starving. If a calf sucks from a cow half that she gives, it benefits him more than though the same be fed to him. If we take a cow that gives "a good mess," as the term is, and let two calves suck her they will frequently get quite fat with this chance and seem to wean better, winter better and make thriftier cattle than those that never suck. A couple of calves striving to get more milk every time, would have a tendency to increase the quantity, or else nature has not provided for this emergency as she has for others.

When the calf is first dropped, the first object is to get suck, as the first from the udder of the dam in this state is almost indispensable to the health of the animal; next the cow is milked clean twice every day, after the calf takes his fill, till the dam does not give more than it will consume; after four weeks the calf should be turned out to run with the cow, to suck when he chooses, until when

about nine months old, at which time the cow will generally wean her calf off.

This plan of weaning calves is adopted throughout nearly the whole of the Southern country, as our planters prefer beef to veal as a general thing. Often it happens that the calves do not come out of the woods until they are some months old. But since the planters have begun to improve their stock, they have begun to pay more attention to the calves and many have adopted a plan to raise them by hand.

In rearing the calf by hand, we must use every precaution to keep them as near the natural condition as possible, as the first year of the animal's existence is a period of most luxuriant growth, so, also, it should be the period of luxuriant feeding, as the most liberal feeding is most amply repaid; so is the slightest neglect the cause of irreparable loss.

We let the calf suck the dam for a day or two, after which milk into a bucket two or three quarts of milk, and after getting the calf backed into a corner, stride across it, inserting the fore finger of the right hand into its mouth—having, if possible, an assistant to hold the bucket for a few days—and pressing the head down with the left hand into it; after a few days commence teaching the animal to hold its head down into the bucket without your finger in his mouth; when, by perseverance and abstinence from nourishment it can soon be made to drink by itself, and thus you give it skimmed milk mixed with new milk and afterwards all skimmed milk, without any more trouble than placing the pail or vesseled before the calf. If the calf is allowed too much milk for several months, it is injurious to the future development of the young. It does not distend the stomach properly, nor call into use its ruminating habits. Calves thus brought up sometimes prove light bellied, indifferent feeders and decidedly inferior animals.

The calf is sometimes fed on milk at one degree of temperature, and at another time on another certain degree of temperature, varying in degrees of heat as often as fed, and as often fed irregularly, and, I might say, rather sparingly for three or four months, and then turned out to shirk for itself. In this way the food must be poor, and it requires a greater quantity to support the solid parts of the body, thereby distending the capacity of the stomach and intestines, as the poorer the food the less the chyle to support the animal system, the remainder passing off in the excrements, at the same time contracting and stinting the lacteal vessels, which convey the chyle from the mis-sentery to the thoracic duct.

The chyle is a white juice in the stomach consisting of the finer and more nutritious parts of the food which is received into the lacteal vessels and serves to form the blood.

Hence my conclusion, that the poorer the calf is kept the more the lacteal and arterial vessels will be contracted and stinted, and the more the stomach and intestines will be distended, and, should the plan be persevered in, the fine points and just proportions never will nor never can be fully or finely developed; no matter how well they may be kept after; although some may, by great care, be brought to a positive state; but, as a general rule, it stints them forever.

Again, when a calf is fed too bountifully, as is the case with many at the present day, all the vessels become extended to such a degree that the reverse cannot but be expected; that is the vessels that carry nutrition to the solid parts of the body will be so much more extended than the intestines, that when they come to be fed as all planters would wish to feed their stock, after one year of age, on good fodder or hay only, the stomach and intestines become insufficient to furnish the wants of the lacteals, so that the sympathy of the organs will not be preserved—

so essential and requisite for their future advancement and prosperity. D.

*South Carolina, Feb., 1857.*

#### CHINESE SUGAR CANE—LETTER FROM DR. ROBT. BATTEY.

EDITORS SOUTHERN CULTIVATOR—The general interest now felt (over the entire country) in the Chinese Sugar Cane, and the experiments made with it by myself and others, has so encumbered me with letters of inquiry that I find it a serious tax upon me to reply to questions so often repeated. May I ask the use of a small portion of your space that I may speak to all at one sitting? If there be any of my correspondents who are not readers of the *Southern Cultivator*, I trust they will at once avail themselves of its benefits.

1st. Of the precise dimensions of the mill used by Mr. PETERS, I cannot speak definitely. I would select for myself rollers of cast iron 18 inches in diameter and 24 inches in height, and of the latter dimension 4 inches should be devoted to the cogs and 20 inches (roughly turned off in the lathe) for the pressing surfaces, which should not be smooth, or the cane will slip and greatly retard the pressing. Such a mill will harvest 5 acres satisfactorily.

2nd. The mill must extract 50 per cent. of the entire weight of the cane, or it is not economically adjusted. If it be put up in the best style, and the power is ample, 60 per cent is not too high a figure for the best cane. The mill should so perfectly accomplish its work that the bagass shall be a refuse product—so far as syrup is in question—after having passed the mill. It will be so broker and confused that it cannot be returned to the mill with any advantage, and pressing it after the manner adopted for the extraction of cider would be a most unprofitable expenditure of time.

3rd. "The leaves or blades" should be removed before pressing, and indeed before cutting the cane from its root. This should not be done "carefully," as suggested by a correspondent, for this, in the strict acceptance of the term, would involve needless waste of valuable time. The folder should be stripped off rapidly and tied into bundles as usual with corn for the reasons: first, that it is a valuable part of the crop; secondly, if left upon the cane it would retard the pressing and contaminate the juice with an additional quantity of objectionable vegetable matter.

4th. Let me say by way of explanation to my Northern friends: syrup is, with us, the juice of the cane boiled down to the consistence of molasses, while the latter article is the drippings from granulated sugar. The first is a primary and the latter a secondary product. The consistence is materially the same.

5th. To those who desire a statement of the number of barrels of juice and syrup estimated for an acre, I would say: measure your barrel in gallons, and by the simple rules of arithmetic, divide my figures by yours, and you have the estimate. I give my figures in gallons as being more definite and more easily comprehended.

6th. In reply to many inquiries for seed of reliable quality, I would say: that I have no seed beyond a very small parcel which I have grown for my own experiments. I will, however, cheerfully assist those who desire in referring them, so far as I can, to reliable sources for their supplies. Parties who have such seed for sale would do well to let the fact be known through your advertising columns.

ROBERT BATTEY.

*Rome, Ga., 1857.*

CORN FODDER.—*Editors Southern Cultivator*—I tried sowing the corn thick in the drill, for fodder, last year, and like it very much. It makes a very heavy yield, and much finer forage than the more matured blades. I expect to make my fodder in that way next year.

Yours, &c.,

G. W. W.

*Fair View, La., 1857.*

**CHINESE SUGAR CANE.**—A number of farmers in this town and vicinity have pledged themselves to raise an acre or a half acre of the Chinese Sugar Cane, and to pay each his proportion of the expense of the machinery necessary to grind and boil the products, to the end that the raising of the article in this region may be fully and satisfactorily tested. Dr. Chaffee, Representative at Washington, has pledged the seed necessary to plant eight acres. The object is a worthy one, and it is to be hoped that the trial will be sufficiently thorough and extensive to be the basis of future action.—*Northampton (Miss.) Courier.*

#### REPORTS OF COMMITTEES.—MAPES' AND GIBBS' Rotary Digger.

THE undersigned Committee of the Beech Island Farmer's Club, appointed to test the performances of a "Mapes' & Gibbs' Rotary Digger," and "Washington Plow, No. 2," recently purchased by a member of this Club,

#### REPORT

That they have witnessed the performances of these implements in a loamy clay soil in excellent order to exhibit them to the best advantage.

From the cost of the Digger (\$125 at the factory in New York), and from several notices of it in the *Working Farmer*, a journal conducted by Mr. MAPES, one of the inventors, and particularly on account of an Editorial article in the July number of that journal, in which it was stated that, with a single yoke of oxen, this implement would completely pulverize the soil the width of two and a half double horse plow furrows (assumed to be at least 20, perhaps 30 inches) and 16 inches deep, the Committee expected to see the most remarkable and efficient agricultural implement yet invented—one calculated to create a new era in farming.

On examining it, they found that it was an attempt to combine the Subsoil Plow, the Roller and the Harrow in one. The Subsoil Plow which was attached to the beam in front, had a blade 7 inches wide at its greatest width and from the bottom of the blade to the beam was 15 inches. The Roller, which was immediately in the rear of the subsoil plow, was 10 inches long and 14 in diameter. On each side of the roller were the diggers, small iron teeth  $2\frac{1}{2}$  inches wide and 6 inches long. The Roller consisted of a succession of plates revolving each on a journal of its own, and each digger or tooth did the same; both the roller and diggers, however, revolving in the rear of the plow on a common axel. We tried this implement or machine first with one yoke of oxen, but finding they could not pull it when made to do its utmost, another equally fine yoke was added, and the work was more than ample for both yokes. At its best, this machine subsoiled and rolled down (the land being in such condition that not a clod was made) a strip 7 inches wide, the centre of which was  $12\frac{1}{2}$  inches deep, and the whole on an average of 10 inches. It could do no more.

The Diggers at the sides entered the earth, making holes, on an average, 4 inches deep, and scooping out at every 6 inches, a handful of earth. The entire width of subsoiled and scarified land was 18 inches, and a very thin coating of dead grass choked it up every 30 or 40 yards.

As good a Subsoil Plow as this can be placed on the plantation of any member of this Club for \$6, and can be made to pulverize the earth as deep and as wide with two good mules. The Roller is of no appreciable value; while the diggers, whose only possible use might be to pierce a clod occasionally, and which absorb at least one-half of the motive power, are simply a nuisance.

The unanimous opinion of the committee is that the "Mapes' and Gibbs' Rotary Digger" is a gross imposition. The question was put and not one of the Committee would consent to accept of it as a present.

The "Washington Plow, No. 2," the cost of which was

\$10 at the factory, was next tried. It was found to be rather too much for one yoke of oxen, but two yokes carried it with ease, and it cut and turned a furrow 12 inches deep and 12 inches wide. For breaking up land and for hill side ditching and surface drains, it is an excellent implement. While in the opinion of the Committee the "Digger" never can be improved into a machine of any economic value, they think it would be a very great improvement to the latter valuable plow to make the beam 6 or 8 inches longer.

All of which is respectfully submitted to the Club.

R. BRADFORD, *Chairman.*  
S. CLARK,  
H. R. COOK,  
JON. M. MILLER,  
GEO. B. MILLER, *Committee.*  
J. H. LANIER,  
T. W. WHITLEY,  
H. L. MAYSON,

[Without expressing our own opinion on this subject, but merely for the purpose of showing how differently the same matter is regarded by different people, we append the following Report on this implement, from a number of gentlemen at the North, who also witnessed it in operation.—Eds. So. CULT.]

**MAPES' AND GIBBS' DIGGING MACHINE.**—This implement the Committee saw in use, and had every reason to be satisfied with its performance, as it leaves the soil in better tilth and to a greater depth, than can possibly be brought about by plowing, harrowing and rolling. This machine may be worked by a pair of oxen or mules, and will disturb as much soil in two hours to a depth of sixteen inches, as can be disturbed in five hours by the same team with any plow to the depth of eight inches; or, differently stated, it will disturb five acres to the depth of sixteen inches, in the same time that the same team can plow two acres to a depth of eight inches. The soil is left in a finely divided state, and the machine may be so set that the surface will be turned to any required depth from one to twelve inches, while the lower portion is disturbed without being elevated or mixed with the surface-soil.

H. MEIGS, *Chairman.*

JOHN A. BUNTING,  
THOS. W. FIELD,  
A. O. MOORE,  
JOHN V. BROWER,  
R. L. WATERBURY, M. D., *Committee.*  
C. F. TUTTLE,  
A. S. WALCOTT,  
WM. RAYNOLD,  
S. BLACKWELL,  
JOHN M. BIXBY,

New York, Jan. 3d, 1857.

#### GUANO.

IN answer to sundry inquiries as to the price of Guano, how to know that it is genuine, what kinds are best, how to use it, and whether it is profitable for a farmer, we offer the following remarks:

Guano is sold by the agent of the Peruvian Government in New York, at \$60 per ton for No. 1, in bags of about 160 or 170 lbs., and 500 tons or upward at once, on 60 days' credit. In smaller lots, it is \$65 cash. We believe that it is not sold in less parcels than 25 tons by the agent. It is a mystery to many persons how retailers sell guano at less than these prices. They may do so and be honest; because they buy long tons and sell short ones; and, as it costs about 23 cents a pound, if sold at 3 cents, which

is the usual price, it affords a fair profit—say \$7 a ton. But guano, said to be genuine No. 1. Peruvian is sometimes sold by the single ton in this city, at \$55 a ton. It may be so, but we don't believe it. We don't believe it, because men are not apt to do business without profit; much more, at a positive loss. At \$60 a ton, we should like to know our man, and have more confidence than we now have in any one in that trade in this city. It is altogether better for farmers to club together and buy their guano direct from the agent, at his price, and be sure to get honest weight and quality. In every carge of guano there is 50 to 100 tons in the bottom that is damp, and this is sold as No. 2, at about \$15 per ton less than No. 1, and the bags weigh 15 or 20 lbs. more, on account of the water, and besides, it is not so good. Then we have "Mexican Guano," which is sold at any price from \$10 to \$25 a ton. "Ichabo Guano" is worth about \$40. There are some other kinds, both genuine and manufactured, but none our Peruvian can often be found at retail. What becomes of all the others, is a mystery to those who know that some of the largest retail dealers in the city buy large quantities of the cheap kinds, and cart them to their store-house, where, for aught we can say to the contrary, they are still in store, waiting for a rise in the market. It is barely possible, however, that when No. 1 and No. 2, Peruvian and Mexican, Chilean and Ichabo, are emptied upon the floor together, the moisture of the No. 2 is absorbed, and the Mexican loses its color, and the whole pile turns, of its own accord, into "genuine No. 1 Peruvian Guano—warranted."

We should a little rather buy of the agent at \$65 than of any retailer at \$55, notwithstanding the warranty; and that is the only way to know that it is genuine; for we defy the best judges to tell by looks, taste or smell.

In England, adulteration of guano has been carried to an extent hardly to be credited by such honest traders as the universal Yankee nation. As it is generally supposed that some of that nation have learned to adulterate liquors, it is barely possible that they have learned to adulterate guano.

As to the best kind, we cannot recommend a farmer ever to buy any but genuine No. 1 Peruvian guano. Other kinds may be worth their cost, but then again they may not be better than so much yellow dust.

#### HOW TO USE GUANO.

The best way is to sow it broadcast, without any mixture or preparation, except to break the lumps and thoroughly incorporate it with the soil by a light plowing or heavy harrowing, and sow the land with wheat or other small grain and clover or grass, in all cases. It is used with corn, potatoes, or other crops, mix it well in the soil, and follow that crop with another the same season, to get the after effect of the guano.

If applied as a top-dressing to grass, it should be sown immediately before or during a rain, or else mixed with charcoal dust, or plaster of Paris. It may be thus used upon wheat or other small grain.

#### QUANTITY TO THE ACRE.

From 200 to 300 pounds we consider the most profitable application, though it has often been used to advantage in larger and smaller proportions.

#### IS IT PROFITABLE?

For the purpose of renovating the poor, stony, sandy-plain in the country, or soil-denuded gravel knoll, it is the most profitable application ever made by a farmer. Upon all lands which need manure to make them produce a fair crop, it is profitable even at the present extravagantly high price. In whatever situation it can be used, where other manure cannot, it is profitable; and it is certainly so, in very many cases, to use it instead of other manure, where that has to be hauled any consider-

able distance. If it would be profitable to restore such a tract of barren sand as that, for instance, between New Haven and Meriden, Connecticut, to a condition which would produce crops of grain capable of paying all expenses, followed by a heavy crop of clover, then it would be profitable to apply guano to that land, for that is what it would do. If a farmer, can make the poorest old field as productive as his richest one, for an expense of \$9 an acre, then it is profitable to use guano. The same may be said of Superphosphate of Lime. If it is genuine it is valuable, and its use profitable. But how some people have been cheated with this stuff!—*New York Tribune.*

#### HOW TO LAY OUT SURFACES.

To lay out an acre circle: First fix a centre, and with a rope as a radius, seven rods, three links and three-eighths long, one end attached to the centre and kept uniformly stretched, the sweep of it at the other end will lay out the acre.

For one-quarter of an acre, a rope 3 rods and 14 links will be the right length.

For one eighth of an acre, a rope 2 rods and 13 links will be enough.

Triangles: If you wish a triangle to contain just an acre, make each side 19 rods, 5½ links long.

A triangle whose sides are 6 rods and 20 links long each, will contain one-eighth of an acre.

To lay out an ellipse or oval: Set 3 stakes in a triangular position. Around these stretch a rope. Take away the stake of the apex of the triangle, which will be where the side of the oval is to come—move the stake along against the rope, keeping it tight, and it will trace out the oval.

A square, to contain a acre, or just one hundred and sixty rods, should have each of its sides just 12 rods 10 feet and 17-10ths long.

To draw an oval of a given size: The long and the short diameter being given—say 20 feet for the shorter, and 100 for the longer—divide the short diameter into any number of equal parts, say ten, and from each point draw a line parallel to the long diameter; then divide the long diameter into the same number of equal parts (10), and from each point draw a line parallel to the short diameter. Then draw a line from point to point where each corresponding line cuts the other, on the outside, and this connecting mark will describe the oval or the ellipse required.—*Arator.*

#### SHEEP RAISING IN THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—If I should indulge at the outset in a few introductory remarks which might not seem to be very appropriate to my subject, or should fail to meet the expectations of the readers of the *Cultivator* in bringing my views before them, sympathy on the part of the Editors ought, of course, to be extended towards me, as they have invited me to their columns on this subject, and for the farther reason that we are both fond of good mutton.

We are admonished, Messrs. Editors, in Holy Writ, of the wayward ramblings of sheep, from shepherds being employed to watch over them day and night, and in proof of their fidelity to their flocks they were the first to receive the glad news of the birth of our Savior, and of beholding with their eyes the star that hung over his couch. This great event took place in the night time and was first revealed to the keepers of sheep (they being awake) which goes to prove their vigilance, day and night, in protecting their flocks from beasts of prey.



Sheep are the most innocent and unsuspecting of all domestic animals, which admonishes us they need our protection and that they should not be suffered to roam at large over the woods, as other animals, without some person to look after them. I shall, therefore, as a matter of convenience and profit, recommend them being taken for safe keeping to pastures inclosed with good fences, without which no one need think of raising them to profit, as the days of shepherds are past.

I have for the last eight or ten years kept on my plantation from 75 to 100 head, which has cost me nothing except salting them once a week and keeping up my fences; besides this they have had no other care during fall and winter but to keep them behind my other stock to glean what they leave in the different fields; and I might have kept double the number by taking care of the wheat and oat straw, and feeding it to them, which has been wasted on my place every year; and then have had in the spring and summer a sufficiency of pasture grounds to have made all fat; sheep are less expensive in winter than any stock we raise, but it is indispensable to have good pastures in summer for them, and nothing is better than a Crab Grass pasture.

My experience with sheep is, they have yielded me a profit by their wool of 50 per cent., independent of a fat lamb or sheep, whenever I wanted it. Now, Messrs. Editors, if we can add to our table comforts another wholesome dish and make 50 per cent. off of the capital invested, by their fleece, who ought to object to it? What profit sheep raising in the South would yield on a large scale I cannot say. I only preach what I have experienced myself.

There is no better way to prepare wheat or oat straw for sheep, to make it palatable, than to saturate it with salt and water when putting the straw away.

I think it advisable to shear sheep but once a year, say in the spring. This plan may not yield so much wool, but I think it would be conducive to their health. If, however, a disease called the rot should get amongst them turn them in on a hoarhound patch, and let them stay there a few weeks—they will eat it freely and it will prove a sovereign remedy.

I was struck, Messrs. Editors, with an idea advanced by one of your contributors, in one of the early numbers of the 14th volume—that we should raise our own mules, &c. I give in at once to his advice, for I believe in raising everything on the plantation we can. But behold, in a subsequent number, another of your respected correspondents, in the same county, informs us: "If there was 100 acres of stubble or pasture lands in that county, he had not seen the man that saw it." I concluded at once that the chance for raising stock in that county was anything but good. The preacher that has the most effect with me is the one that practices what he preaches, and I say away with all the rest.

I will now close this imperfect communication by saying that "any man who is not fond of a fat quarter of lamb, nicely dressed, is no friend of mine."

E. JINKINS.

*Horse Pen, Miss., 1857.*

#### A "LOVE" OF A KITCHEN.

A Paris correspondent of the New York *Express* gives us the following *bagatelle*:

"There resides in the Rue de la Chaussee d'Antin, a worthy lady who makes a single apartment in house more elegant than all the rest combined. This grand apartment is—the kitchen. Whenever this lady receives company, all sorts of ingenious plans are formed, and every description of little artifice employed to induce her guests, without actually asking them, to have a peep at this den

—generally kept as much as possible in the back-ground, for obvious reasons, (nothing is so disgusting to a true epicure as the smell of cookery.) In most houses, therefore, the kitchen is as far distant from the drawing-room as possible. In this instance, on the contrary, the local topography is so arranged that many persons wishing to go out, mistake the door, and, just as they are about hastily backing out, are accosted by the most dazzling of cooks, who cries, with a smiling air, 'It's the kitchen, Monsieur, (or Madame.) There's no harm! Walk in, if you please!' By this time, the glance of the visiter has taken in all sorts of unexpected things hung around the room, and he is induced to enter this curious boudoir kitchen. The walls and the floor are composed of mosaic brick of numerous colors—the prevailing being blue and white. Gas burners issue from rare and beautiful China saucers, or burn through the artificial wicks of antique lamps. The dressers and closets are covered with burnished copper, and contain the thousand and one utensils of the *cuisine*, all shining with dazzling polish—the kitchen girl being a Holland lass, spares neither brick dust nor muscle in keeping up the proud reputation for cleanliness of her country. What is most surprising in this model kitchen, is to see the saucepans and gridirons, bright as so many new matches, hung up with rose colored ribbons. Evidently these utensils consume more ribbon than even madame's bonnet! A short time ago, the friends of the proprietress of this unique establishment begged her to give a breakfast in this elegant kitchen. She consented, on one condition: the guests should themselves cook the breakfast they were to eat, and afterward they were to wash the dishes and put everything back in the same order in which they found it. The stipulation was stoically accepted. Two ladies who have four or five hundred thousand francs a year to spend, the lady of an admiral, a duchess, and the wives of two foreign ministers, were present on the occasion, and took part in the novel proceedings. The dish washing efforts of these fashionable butterflies must have been amusing."

#### BOTTS IN HORSES.

EDITORS SOUTHERN CULTIVATOR—The greatest remedy in the world for the cure of Botts in horses: Take the root of Jerusalem Oak, or "Worm Seed," as it is commonly called, and boil it into a tea, which is easily done by mixing a little water with it and setting on the fire. Give the horse two quarts of the tea about milk warm, mixed with a little molasses or sugar. As it will operate on him like a charm by giving instant relief, and destroying the botts, the worm seed or Jerusalem Oak is the great sovereign remedy for worms in either the human family or other animals and seems to have been particularly designed by the Great Creator of the Universe as such. It is the main ingredient which is used in all vermifuges for the destruction of worms in children, and is found in almost every farm in the United States, growing about the corners of the fences, and is known by the great multitude of seed which it bears and its peculiar smell; it has a very large root, and is a weed which dies in the fall and comes up again in the spring.

The Botts are caused by a small nit which is deposited on the legs and flanks of horses in the fall season by a fly which resembles a bee; the horse in biting or scratching himself with his teeth gets the nit in its mouth and swallows; it almost immediately hatches and becomes a worm and feeds on the nutriment of the maw, until it is discharged with the food, when it is transformed into a fly. During the time the worm is in the maw, if the horse becomes heated by severe exercise, the worm will seize

hold on the maw and commence eating it, and sometimes in a few hours will entirely desroy it and death follows to the horse as the consequence. And there is but little doubt but nine out of ten horses, die in the United States by this fatal disease. Persons who own horses ought to be very particular and scrape off the nits when discovered on their horse's legs or body, and grease well the places so as to prevent others from sticking. By taking a nit in your hand and wetting it, then rubbing it with your fingers, you can hatch the worm from the nit in fifteen seconds. The horse is a valuable animal and pays well for every attention paid him; if properly cared for, and well treated he will do good service until he is thirty years old.

**SYMPTOMS OF BOTTS.**—The horse become restless; stamps with his feet; switches his tail; will lie down and wallow frequently, and look back at his flank. When this is the case you may be sure it is the Botts, unless the horse is greatly swelled in body, from the cholice. The above remedy will cure in thirty minutes, if properly applied. I have known it to cure in ten minutes.

WM. B. TROTTER.

February, 1857.

### THE COTTON GIN—ITS ORIGIN, &c.

**EDITORS SOUTHERN CULTIVATOR**—In a back number of your valuable journal, over the signature of "Antiquary," is an article purporting to give the origin of the Cotton Gin; which, upon reading, "leaves one in doubt whether the snake that made the track was going in or coming out." The writer urges BULL's claim to the invention, but before he closes his communication he tells us that WHITNEY actually commenced suits against BULL and others who were using his gins, in the United States Court. And he states, furthermore, "whatever doubt may exist in relation to BULL's claim to the invention of the gin, there is but little doubt but that he is entitled to the credit of the first packing screw."

Now, if "Antiquary" entertains doubts in reference to BULL's claim, why longer fail to give credence to the testimony of so many distinguished witnesses in favor of WHITNEY? What unproclaimed revelation is there, that we should discard the testimony of such men as EDWARD EVERETT, and the public generally? Our great solicitude is to bestow the merit of the invention upon the true discoverer; and to see the same recorded on the pages of history by the free historian of free America with the golden pen of Truth, so that our history may be what all history ought, that in which virtue, merit, and genius may stand out in their own unfading beauty, the admiration and model of the world! A discovery which has caused the culture of our beautiful staple, cotton, to rise from its languishing condition (owing to the great difficulty of separating the seed from the fibre) to be the sole monopoly in the Southern States, should be treasured up by the rising generation as a happy epoch in the progress of science. The name of the inventor of such a machine should not be of doubtful memory with us (who are the recipients of the manifold blessings arising from such invention.) If BULL was the inventor of a machine, the prototype of our present Cotton gin, let us all unite in vindicating his cause. And to prove to "Antiquary" that I am like a thousand others only anxious to stop the caviling on this matter and to bestow the honor on the meritorious, I would say that I am as willing to see the laurel wreathed about the memory of Mr. BULL as Mr. WHITNEY, provided it be due. But until "Antiquary," of Pike, has adduced facts to substantiate BULL's claim, we shall continue to bestow the honor upon WHITNEY—where we believe the rising generation will accord it.

Respectfully,

J. C. R.

Okaloosa, Miss., 1857.

### CHINESE SUGAR CANE---SORGHO SUCRE.

TRANSLATED FOR THE "WORKING FARMER," BY M. S. OLCOTT.

DURING the past year, I have made the public acquainted with the various products obtained from the stalks of the Sorgho Sucre, and have shown how this plant should be cultivated. I think it well to enumerate the results which have been arrived at since that time, to say a word concerning the causes of the failures related by various experimenters, either in culture, extraction of sap from the stalks, or distillation of *vesou*, (juice that runs from the crushed canes.)

The trials made in the middle and Southern provinces of France, have confirmed my previous assertion that the cultivation of the Sorgho and that of Indian Corn, were strongly analogous. Nevertheless, several agriculturists, unwisely thinking to sensibly increase the yield of stalks, have practiced numerous floodings of the field. The consequence has naturally been, that the sap yielded by the stalks under such circumstances, has only given on distillation three per cent. of alcohol, in place of the five per cent. usually furnished. This unpleasant result is due entirely to the too great quantity of water contained in the stalk at the time of cutting. I repeat here, what I have previously urged, that irrigations are necessary when the soil is dry, we should not abuse this nor practice it too late.

The experiments have proved, contrary to what I have maintained, that the stalks should be gathered when the seed is first ripe. In the South (of France) it is done in September. If the stalks are cut too soon, the juices they contain are proportionately less saccharine; if they are cut too late, they yield a smaller quantity of sugar.

At various depots, the alcohols arising from the distillation of the expressed juice of the Sorgho, have been rejected because they had an unpleasant taste. This is solely due to the crude methods of manufacture. Thus, if in place of crushing the stalks with an ordinary wine-press, they had used a regular cane mill similar to those in use in the colonies, and which M. Cail, of Paris, exhibited at the World's Exposition, the yield of sap, instead of being 35 or 40 per cent., would have been increased to 50 or even 60; if instead of leaving the *vesou* to remain undisturbed for several weeks after expression, it were at once submitted to distillation, they would never have had cause to complain of its having passed from the saccharine to the acid fermentation.

But it is not sufficient to crush the canes, or to have a special crushing mill; it is likewise necessary to submit the *bagasse* (crushed stalks) to the action of an hydraulic press.

Finally, to sum up, the stalks must be cut when the grain is ripe, crushed as soon as possible, and the distillation of the *vesou* (juice) speedily attended to with suitable apparatus; those used by the farmers who have obtained their alcohols with bad flavors, being very far from complete. The stalks may also be dried, for the sugar is well preserved in the medullary structure.

The facts gathered this year concerning the products yielded by the Sugar Sorgho, enables me to state that we can rely upon 60,000 kilogrammes per hectare of stalks, 30,000 kilogrammes sap, and 1,500 litres of alcohol at 50 "centes" of very fine flavor, and without essential oils. In Champagne even 3,000 litres were obtained last autumn.

The *bagasse* (crushed canes) may be fed to horned cattle.

As to the yield of seed, it varies from 40 to 50 hectolitres per hectare.

All other things being equal, the Sorgho Sucre is from this time forth destined to assume an important rank amongst the crops of the South (France) and Algeria. I

remain convinced that, if well cultivated and well treated in distilleries, it will be for certain countries what the sugar beet is for the provinces of the north of Europe. I do not despair of hearing soon that its culture is introduced in Martinique, the Isle of Bourbon, &c. We know that this plant is an annual, and that the *resou* which it yields contains eight to ten per cent. of raw sugar analogous to that from the cane.

If this plant, which surprises one by its height and the beauty of its stalks, be not destined to be cultivated in France for its sugar-bearing qualities, it is indisputable that it may still be regarded as one of our very best forage crops. Cut in July, in the more central portions of France, it affords an abundant green forage, *spring up again, and gives in October an excellent second crop.* We do not elsewhere possess amongst the grasses, plants which offer such advantages.

I repeat that the hulls of the seeds contain a coloring matter of a blueish violet shade, which M. Secard, of Marseilles, has successfully used in the dyes for cotton and linen goods.

GUSTAVE HEUZE,

Professor of Agriculture in the  
Imperial School at Grignan.

*Journal d'Agriculture Pratique*]

Kilogramme . . . . . 2 lbs. 5 1-2 drachms.  
Hectare . . . . . 2 1-2 acres.  
Litre . . . . . 2 1-9 wine pints.

REMARKS.—Unlike the *Dioscorea Batatas*, which has met with very general censure from our experimenters last season, the Sorgho has fully met the expectations of its most sanguine friends. As it becomes more generally known, and new experiments are instituted upon it, we predict that it will meet with more extended favor. Its good qualities may be enumerated as follows:

1. Its cultivation is no more troublesome than that of corn.
2. It grows to full height, and will doubtless perfect its seed as far north as the latitude of Halifax.
3. It is a very profitable forage crop, giving two crops—one in July, the other in October—of a green fodder superior to sweet corn.
4. It yields 26 bushels of seed per acre, which make a fine meal, and the hulls of which afford a good dye stuff.
5. It, together with this seed, gives also one thousand or more pounds of excellent sugar per acre, and at the same time fifty-five gallons of molasses or syrup.
6. It gives on distillation about 300 gallons of alcohol at 50 centesimal.
7. The crushed stalks may be fed to cattle, who are very fond of it.
8. If used to make syrup only, it has yielded to Mr. Peters at the rate of 468 gallons per acre.
9. The molasses may be distilled into *tafia*, rum, brandy and a beverage similar to cider.

Without being champion to the extravagant speculations of some of our friends, we cannot but believe that the introduction of the Sugar Sorgho into America is of vast importance to our political economy, and we think the day not far distant when its manufacture into sugar, and distillation into the various alcoholic compounds, will be largely undertaken in the Northern and Southern States.

In the letter which we translated for the *Working Farmer* last spring, M. Avequin says that the brandies, rams, &c., yielded by it, can in no wise compare with the Cognacs, but Professor Heuze, in the above article, maintains that this inferiority is entirely due to imperfect methods of manufacture. We shall see, however, in the future which view is the correct one.

The samples of syrup made by us at the Westchester Farm School, were of very fine quality, equal, we think, to

good maple syrup; and that given to us by Col. Peters, of Georgia, tasted not unlike molasses candy, or the cooked syrup on baked pears.

We esteem it our duty to afford every information in our power concerning the Sorgho, and shall translate from time to time the remarks made upon it in the French journals.

H. S. OLCOTT.

## EMIGRATION.

A correspondent of the *Charleston Standard*, writing from Texas, makes the following sensible remarks in relation to emigration:

"Instead, therefore, of persuading the young men of South Carolina to leave their native State, I would say to them, 'turn your attention to every new branch of business that is honorable and remunerative. Build up manufacturing of every kind. Introduce the culture of everything that yields a large return from a small extent of land. Use your boundless extent of water to irrigate your lower lands and make them yield five to ten fold as much as they are now doing. Plant groves around your dwellings to shield you from the miasma that rises from the creeks and rivers. In short, do everything that is necessary to increase and multiply the resources and independence and power of South Carolina.'"

We have, on more than one occasion, within a few years been compelled to give the parting hand to most useful and valued citizens of our district, who were about seeking more desirable homes, and a greater yield for their labor, in the distant lands of West. And we also have been called upon to record the melancholy fate, and perhaps, too, to learn of the wreck of fortune of those who relinquished abodes, smiling with health, plenty and prosperity, in their maternal and native Carolina. An uncalled for or imaginary dissatisfaction, or, may be, a thirst for more rapidly increasing gain we fear, in too many cases, prompts the actors.

The soil and the various departments of mechanical and industrial pursuits in South Carolina, all of which tend to the development of our resources and the building up of our commercial importance and State-rights independence, still hold forth inducements and rewards for the investment of enterprise and capital. Many are the noble and never-failing streams, coursing our native valleys and embodying within themselves the element of power necessary to put in motion the driving machinery and busy loom, whose waters of wealth have been permitted to flow on, yielding no increase. The soil, too, with a proper and judicious system of cultivation, has never failed to render a remunerative return.

Why, then, will the sons of Carolina, who have been nurtured in her lap and reared to manhood beneath her genial sun, desert her standard, and lend their enterprise and means to enriching and building up other lands? Gratitude, and respect and veneration for her honored name, if nothing else, should deter them.—*Smelter Watchman.*

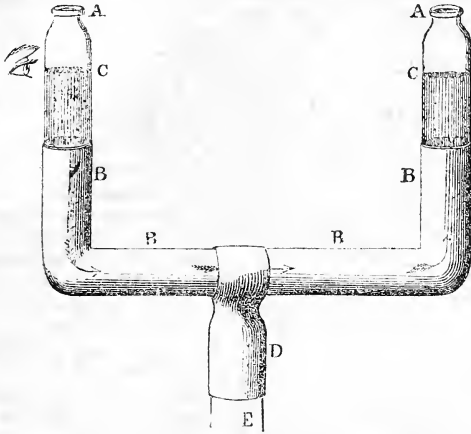
CHEAP BOARD FENCE.—The following will be found to be a cheap and lasting fence: Posts six feet long, holes dug 15 or 18 inches deep; then have the posts set in and well rammed. Next, throw up an embankment at least two feet high this will make a narrow ditch as deep as the foot of the posts, thereby preventing decay. It will also drain the land considerably. Two boards—one a foot wide, the other eight inches, with a cap board four inches wide, on top, will be high enough for a common fence. It can be easily seen that a fence made in this way will last longer than any other fence made of wood, and the first cost is but little more than a common zig-zag rail fence.

R. W. S., in *Canadian Farmer*.

Canada West, 1857.

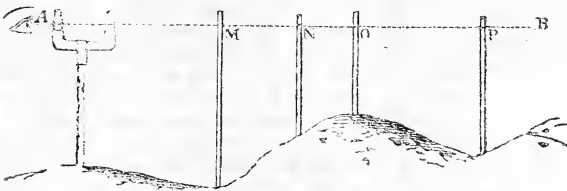
## LEVELING INSTRUMENT.

EDITORS SOUTHERN CULTIVATOR—The annexed sketch of a Level which I have for many years made use of in taking levels on my hill-sides, will, perhaps, from its sim-



plicity, cheapness and accuracy, be of some use to our farmers in laying off vineyards, orchards or roads, etc.

A, A, are two glass tubes; phials from which the bot-



South Carolina, March, 1857.

## TREATMENT FOR DOGS, HORSES, AND SHEEP.

Sir—Allow me to offer to your correspondent "Widegeon," the following simple cures.

## DISTEMPER IN DOGS.

I have found from experience that a large tablespoonful of common salt effects a cure, if given at the commencement of the disease. If the first dose be not sufficient, it may be repeated after the lapse of one day.

## JAUNDICE IN DOGS.

Some time since a large thorough-bred retriever, belonging to a friend, had the misfortune to be poisoned, but fatal effects were prevented by nature compelling him to vomit very freely. Three full days afterwards, being informed that the dog had not purged since vomiting, I was induced to apply a rather severe remedy, in the shape of two drops of croton oil on the tongue, at the same time giving directions for his diet to be plain, and of a liquid nature. On the second day after administering the croton oil, the animal had perfectly recovered his usual healthy state.

As raw eggs are said to be an alleviation, if not a cure for this disease in the human subject, I have no doubt they would be equally effectual with dogs.

## WORMS IN HORSES.

One pint of cold drawn linseed oil will be found an effectual cure: but remember that perfect rest must be given while it remains in the stomach. The worms will surfeit themselves with the oil, and so die, when they will be discharged in the course of nature.

tooms have been filed off are as good as any, so that the glass be clear and white.

B, B, is a tin tube, which any tinner will make for 25 cts.; its inner diameter should be a little larger than the diameter of the glass tubes; it should be water tight at the joints.

D, is a socket, intended for the stick (E), which latter can be of any length. Now pour water (slightly colored) in one of the phials; it will, of course pass into B, fill it and rise into the other phial, and, of course, the two surfaces (C, C,) of the water will be on a perfect level with each other, whatever be the quantity of water poured in, and whether the stick (E) be planted in the earth perpendicularly or not.

The second sketch will show its use without requiring further explanation. The line A, B, being the line of level and the uprights (M, N, O, P,) being sticks put up at suitable distances.

A single inspection of these plates will show at once that nothing can surpass the accuracy of this instrument, however coarsely it may be made, while the truthfulness of most other levels depends on the mathematical correctness of the make.

We cannot too earnestly urge the importance of the use of the level to the farmer. The present method of plowing hill sides any and all ways is ruinous to bottoms and hill-sides.

I could point out a dozen fields, once fertile and watered by fine springs, which are now converted into arid sand-banks, while deep gullies on the hill sides attest whence the sand came from; and the springs, and indeed in many instances fine runs of water, have completely disappeared.

A. C.

## DIARRHOEA IN SHEEP.

I have found rock salt to be an effectual corrective. For field stock, lumps of it must be put into "box troughs," with only one side open, which must always be turned away from the wind, on account of the rain.

## SUBSTITUTE FOR GLASS IN CUCUMBER FRAMES, &amp;c.

The following is in answer to one of your correspondents:—Procure some strong canvass, and brush it over with boiled linseed oil while in a hot state, allowing it to dry thoroughly previous to the next application. Three coats will be sufficient. It being presumed that the wooden frame is already made, stretch the canvass, and nail it on carefully.

D. C.,

[*his* Morton's Practical Agriculture.

Wood Ashes saturated with chamber lye, forms an exceedingly valuable manure. By attention to the saving and mixing of these two materials, a quantity of rich manure may be annually obtained at the homestead of every farm, equal in quantity and high fertilizing properties to a ton of Peruvian Guano, costing fifty or sixty dollars.—Ohio Valley Farmer.

A correspondent of the Boston Transcript says the Chinese linden, or lime in addition to its being the very best and most beautiful shade tree, is of great importance as a destroyer of the common house fly. In the season of house flies he had found that almost innumerable quantities of dead house flies were, in the morning, under the branches of linden, amounting to thousands upon thousands, the surface around being literally covered with them.

## TEXAS ITEMS.

We find the following items of interest in late numbers of the *Texas State Gazette*, and other journals:

The apples of Arkansas and Missouri are among the imported and costly luxuries of interior Texas. We have paid 60 cents per dozen in Austin. The Editor of the *Telegraph*, while at Palestine, writes to his paper:

"I noticed in town yesterday three wagon loads of Arkansas apples, which had been brought about 400 miles to be disposed of here at 50 cents per dozen. It is about time that the people of Texas were rendering themselves in this respect also independent of foreign produce. Apples can be grown here as well as in Arkansas."

We desire to see the experiment fully tested at least.

**CORN! CORN!!**—The enormous prices given for corn in this city, being as high as \$1.50, per bushel, should induce farmers to bring in supplies before the price falls. Now is the time for a fine harvest. We learn that parties are about proceeding to Eastern Texas, to buy up for this place. They intend to shell the corn and send it in sacks.

The *Galveston Civilian* says:—"We have on various occasions announced the fact, that the trade in Texas cattle, horses and mules, with Missouri, was growing into importance. Last spring a friend of ours drove 560 horses and mules from southwest Texas to Missouri, and sold them. On Tuesday last, he again passed through this city with fifteen thousand to invest in another drove. In all, he has driven caballados through four or five different springs."

The *Nueces Valley* thinks it too hazzardous to attempt sheep raising in Western Texas on a large scale. The flocks will perish with disease. The Valley has chief reference, we think, to the lower or Gulf portion of Western Texas. Higher up the country, several experiments have been successful. We believe that among these, we may mention the sheep ranch of Col. Kendall in Comal county.

The steam Plow attracts much attention at present and some of our agricultural friends advise us that they intend trying it in Texas. By recent improvements, this machine is also used for ditching, trenching, planting, hauling out and spreading manure, hauling farm products to market, &c. By throwing the wheels out of gear, machinery is propelled by it, a pump is worked; a threshing run, corn sheller, stock mill, feed cutters, &c. This is all comprised in Hussey's late patent.

**MANURE.**—Experiment shows that the same amount of manure which has been covered nine inches deep with earth so that no evaporation can escape, will produce four bushels more wheat to the acre than that which has lain exposed to the weather. Keeping manure covered, then when wheat is a dollar and a half a bushel, will add six dollars to the value of the products of every acre of land growing wheat.

James B. Dalamara, has purchased mowing machines, horse power presses, annealed wire to bale with, &c., and proposes to commence the making of hay on the Corpus Christi prairies on a large scale. The musquit grass grows on these prairies, and as we all know is one of our most nutritious grasses. It is thought the investment will pay. If it does, we can ship from Texas an indefinite amount of the article.

It is greatly feared that the severe frost on the 18th inst., has injured the stubble cane in our sugar region. We hope not. Our sugar planters already have had a hard time of it.

## REPORT ON COTTON.

BY HON. JOHN P. KINARD.

THIS great staple, which is continually increasing in importance, and ascending step by step, with gigantic strides, has well nigh attained that high position which has been claimed for it, that "Cotton is King." Its influence is felt everywhere, in every department of trade, in commerce, in politics, in Government, and in every branch of human pursuit. It claims and possesses a direct or indirect power, and thus it is that "Cotton may be called King." A few years ago, its production was only a bantling, a small speck in the agricultural horizon. Who would have believed thirty-five years ago, that the production of the then insignificant, but now great staple, should have increased from a few hundred thousand bales to equal to five millions of bales, as compared with the size of bales then packed for market? It has gone on gaining power; developing the resources of our country; building our railroads, ships, steamboats, and, in fact, every enterprise, either North or South, East or West, owes its success, in some way or other, to cotton; and, notwithstanding the rapid and unparalleled increase in production, the price has, with a very few exceptions steadily paid the producer remunerating rates.

Unlike any other production of agriculture, time and experience has shown that cotton possesses the singular characteristic of creating its demand. It is a singular fact, and worthy of important note, and a fact too that has never been satisfactorily accounted for in the commercial world, and, we believe, it has never been attempted by any other class, save commercial men, that the more cotton produced, the higher price is obtained for it. This fact has been fully demonstrated by all the largest crops that have been produced, that higher prices have been universally the result, unless effected by extraordinary counterbalancing influences, such as war or revolutionary disturbances.

The present crop, [1855] is likely to be largest ever produced in the U. S., and will doubtless reach four millions of bales, and yet we see Fair Upland ruling at the high figure of 12 cents per pound. This part of the subject might be discussed at great length. We shall, however, content ourselves at present with the above facts, leaving our agricultural friends to deduct from it whatever of truth or interest it may contain. Another view of the subject presents equally strong points upon almost the opposite premises, and which, to my mind, is the most reasonable and most probable to take place. It is the following:

It is a fact undeniable, that there is but a small portion of our globe, upon which cotton can be successfully grown; and when we take into consideration the rapid annually increasing consumption of this great staple, and the absolute circumscribed limits of culture, is it not reasonable to suppose, that within a very years, consumption will have gained so much upon the production of cotton, that the world will be astonished to find that they have as yet known nothing as to its true value? I repeat, then, that the strong probability is much in favor of a very large increase as to price, even within our day; and, should we be spared the lot of three score years and ten, to see the ruling rates of cotton quite as common at from 15 to 20 cents, as are the current rates of to-day and of last year. So much then as to the probabilities of the course of prices,—now as to the mode of culture, best seed, &c.; and,

1st. There can be no general rule that will apply to the cultivation of cotton; for what will suit one year, will not suit the succeeding one. Much, very much, depends upon seasons. But the successful planter must make showers and sunshine all subservient to his mode of operations.

2nd. If a farmer will watch his crops closely, he will



soon ascertain what soil suits best for the successful culture of cotton, and what sort of manures, the quantities, &c., suit certain soils the best.

It is known to most of my acquaintances that I cultivate the poorest lands, and that I have, perhaps, been one amongst the successful cotton planters of the district; and whatever success I may have attained, I attribute to a close observation of the soils and manures most valuable to those soils, and best adapted to the culture of cotton. My experience is, that the gray sandy soil is best adapted for the reception of guano, and will give back to cotton a greater percent than other kinds of manure.

My plan is to prepare my lands well by thorough deep plowing, and bedding high. About two weeks before I am ready to commence planting, I prepare my guano with equal parts of charcoal, and then open a deep narrow furrow, depositing about 150 pounds of the mixture of guano and charcoal per acre. This I cover up with light furrows, until ready to plant, then open and plant my seed, which I do about the 1st to 20th April, and cover with the ordinary board or harrow, or with the forked plow, if the land is sufficiently smooth to admit of it. The distance of rows is the next matter; that depends entirely upon circumstances. The calculation should be made as to the probable size of the stalks, with view that the limbs should only slightly interlock, when grown, so as not to be too much crowded, nor so wide apart as to be waste of ground. Next, as to proper culture. This is, also, a difficult task, as that depends very much upon the season. The most important matter that I have ever found in the cultivation of cotton, is the first hoeing or chopping out; and my conclusion are that as soon as the cotton is up, and of sufficient size, say three to four leaves, it should be chopped through, leaving four or five stalks in a bunch about twelve inches apart—followed next by the plow. After you get over your crop in this manner, turn back and thin out to a stand, leaving one stalk in a hill. On this plan I have succeeded on the poorest sandy lands of Newberry districts, in making regularly every year 800 to 1000 lbs. per acre. After it is cut down to a stand, the plow does pretty much the balance of the work. I vary the different kind of plows as circumstances may dictate. I believe, though, the bull-tongue or scooter to begin with—and, afterwards, the old-fashion shovel and sweep—answers the best general purposes. As to how late cotton should be worked, depends also upon contingencies; some seasons cotton should be worked very late; and then, again, this plan would prove disastrous. The same reasons and remarks may apply to topping. We, therefore, can only be governed by circumstances.

Picking should be commenced as soon as a hand can pick from 60 to 100 lbs. per day, and followed up closely, so as to gather it before being stained or injured by bad weather; and, in order, too, to obtain good prices early in the season, when prices are always the highest. Great care should be taken in ginning, and properly packing. Every farmer who makes ten bales of cotton should have a good gin of his own. The fine short-toothed gin is much the best, as in ginning it does not cut nor injure the staple. Next, good gunny bagging should be procured, and have your cotton well baled, say with six good ropes. The bales should weigh not less than 400 to 450 lbs.

In the proper place, I have omitted to mention the best kind or seed. There are so many varieties of seeds, it is difficult to say which is the best; but my experience is, that the pure Pettit Gulf is the best variety for our section. The Boyd's Prolific has been recently introduced into this district, and yields finely; but I am of opinion that it is only an improved variety of the pure old Pettit Gulf.—*So. Ca. Agriculturist.*

✂ All subscriptions to the *Southern Cultivator* begin with the January number.

#### WOOD ASHES A FERTILIZER.

In nearly all soils, ashes are beneficial to cultivated plants, but more so on gravelly land than clay; the latter being formed of granite rocks, naturally contains potash; turnips, beets, carrots, potatoes, &c., contains a very large amount of alkalies, and to such ashes are found to be very beneficial. But the immediate benefit of ashes is most perceptible upon leguminous plants, such as peas, beans, and clover, &c. On grass land it destroys moss, sorrel and all our sour plants. On poor, thin soil, it should be mixed with peat, muck, barn-yard and other organic or vegetable manures. Lime is excellent for wheat or corn. These two crops grow well wherever clover will grow, in calcareous soils. Barley requires a rich loam, finely pulverized. It will not grow well on a sandy or soft soil. It will always do well on land suitable for turnips. A strong clay, well pulverized and dry, will yield a good crop. Clay soils always contain more or less lime.

Wood ashes are a most excellent manure, and can be used to advantage on almost all soils or crops. Orchards fatten on them. Unleached, they act rapidly and powerfully; leached, they act more slowly, but continue to act for many years after being applied. The mechanical effect on soils is to render sandy lands more compact and retentive of water, while they separate and render friable heavy clay. Some farmers apply ashes as a top dressing. This will do very well on pastures and meadows, but they should be plowed under previous to planting or sowing, so that the roots of the plants may thereby be fed. Salt, lime, and plaster may be mixed with ashes to advantage for almost any crop, and upon all soils. Our people should be careful to save all their ashes and apply them to their lands, and even burn them with the view of furnishing themselves with a sufficient quantity to make liberal applications of them to their lands, with such other manures as they can raise, annually and systematically. This is done in Edgecomb county, N. C., with astonishing success. Let all it—*Arator.*

#### NOTES ON BEES—REPLY TO MR. McGEHEE.

EDITORS SOUTHERN CULTIVATOR—In the few notes I have had the honor of submitting to the readers of your journal, I purposely refrained from referring to the many disputes at present going on between some of the Bee keepers, because I thought inquirers would be better satisfied with one fact than a thousand fancies. Opinions are valuable only when they have truth for their foundation. The question whether bees deposite in their cells the identical substance gathered from the flower, or whether it undergoes any change before deposited, may be mooted to the end of time; and so far as I am personally concerned, I am free to acknowledge that it makes very little difference, provided that which I take from the comb is good honey. The disputed points I am willing to leave in the hands of experienced naturalists, but the new theory started by your correspondent, Mr. McGEHEE, I cannot allow to pass unnoticed. He expresses his serious doubts that bees collect honey from flowers, and intimates that honey dew is their sole dependence. Now, how any man of observation can have any doubt on a matter so very plain, and one so easily ascertained, is certainly very remarkable. Has he never seen his bees visit flowers, and leave them unprovided with farina? Has he never noticed again that his bees are oftener seen on those little flowers that scarcely have any pollen? If bees go about flowers for the only purpose of gathering bee bread, is it not equally reasonable to say that butterflies, and



the other many insects seen about them, are there for a similar reason? No person denies that bees do gather honey from honey dew, but the other idea is entirely new, and if Mr. McGEHEE will look a little closer, he will be compelled to acknowledge his error.

Mr. McGEHEE seems to think that to the ignorance or neglect of the bee keeper is to be attributed the losses sustained by the ravages of the moth. While I am willing to grant that care will do much for the welfare of the hive, I have been in the business long enough to know that it is impossible to keep the miller from entering the hive; and that just as soon as the eggs are deposited, all the care bestowed cannot arrest the evil. Various plans have been suggested to prevent birds and June-bugs from attacking cherries, figs, and grapes, but they still take their share. If it is so difficult to prevent a thing done in open day, how much more so to devise a plan to destroy the moth, whose operations are carried on in secret.

One portion of Mr. McG.'s communication I do not exactly understand. He says his hives yield him ten dollars per stand. Does he pursue the old plan of removing the top and cutting away the honey? If so, he is far behind the age. Mine generally average me about thirty pounds per hive, but then I never interfere with the lower section, leaving that for the exclusive use of the bees. Were I to take a portion of that, certainly I would get more honey, but in the same ratio I would injure the prosperity of my apiary.

In speaking of robbing, Mr. McGEHEE says this may be done immediately after swarming season, when you can rob with safety all but the young hives. With me I never think of taking honey till the cells are perfectly sealed over, which will commence taking place in June. I have often had young swarms to fill both sections. The honey which, Mr. McG. says, may be taken from the upper part of the hive, I would not consider good. That which I take is always new and of a perfect whiteness and altogether free from bee bread, young bees, &c.

Mr. McGEHEE seems to doubt the propriety of cultivating anything for bees to feed on. If I thought that flowers did not afford honey, I might entertain similar doubts; but thinking differently, I would still recommend the sowing of a small patch of buckwheat, or which would be still better, white clover.

Other portions of Mr. McG.'s communication inculcate very erroneous principles, but having noticed the most objectionable, I shall let the others pass; with the single remark, that if he will abandon some of his old fashioned notions, he will make a worthy coadjutor in a very laudable cause. Respectfully, V. LATASKE.

*Cedar Grove, near Augusta, March, 1857.*

#### WHAT A MAN WANTS HIS WIFE TO KNOW.

There are certain things a man wants his wife to know, which are never learned at Ladies' Seminaries, and too seldom, we fear, at home. One would like his wife to know how to make a shirt. Ever so rich, it would be a comfortable sensation to think that she made it, yet there are some who cannot even sew on a button. To be able to cook a beef steak properly, or roast a joint to a turn—to make a savory sauce, or dish a fricasee—to cook one's husband a good dinner, in short, if need be, is what every woman ought to know, and what very few do know, until obliged to learn it. It is a solemn fact, that not one marriageable girl in twenty can make a really good cup of coffee.

It is all very well to study French, without ever being able to read or speak it with any facility—to learn six or eight sciences up to confused smattering, unavailable from the fear of making blunders, to learn music and drawing for the parlor and drawing room; but a man wants more than this in a wife: and the sensible lover is often fright-

ened away from an amiable girl by a display of accomplishments, which indicate the lack of more useful acquisitions.—*Rural American*

#### THE OLD HOUSE.

There's a spot that I love, there's a home that I prize  
Far better than any on earth;  
It is bound to my heart by the holiest ties;  
And I prize, oh! how fondly, its worth—  
'Tis not beauty, nor splendor, endears it to me,  
Oh no! for its grandeur hath flown:  
But 'tis fondest affection that binds me to thee—  
My old home—my dear happy home!

Oh! home—what dear magic is in that sweet sound;  
How closely it speaks to the heart:  
What a world of deep tenderness in thee is found;  
Oh! who from such treasure could part?  
Could barter the joys of a sweet home of love,  
For a path in a strange world unknown:  
Could seek for vain pleasures and heartlessly rove,  
If they knew the real value of home?

Some sigh to be wealthy, some seek to be great,  
Some envy what others can do;  
But oh! I'm content with my lowly estate;  
For the hearts all around me are true;  
And ties that are nearest and dearest to me,  
And hearts that are truly mine own,  
With fondest affection now bind me to thee.  
My old home—my dear happy home!

#### THE FARMER AND HIS HOME.

It has always been a matter of wonder to us that the farmer should care so little for himself, the members of his family, and his home—that he should hold tasteful and beautiful things in contempt—that he can abide nothing which is not useful, according to his idea of usefulness, and that he should sacrifice comfort evermore to cash. The large majority of farmers have but two tests by which to try men and things: can they work—are useful? They bring up their boys and girls with the idea that work is the great thing—the more work a boy or a girl can do, the higher they rise in the scale of excellence. When they marry, they must marry a girl who can work. If she is "very smart" she is considered a prize. The prevalent fancy is particularly pleased if she has been known to lift a five-pail kettle from the fires and get out a large washing before breakfast. It is all work, work, work—nothing but work. She commences her life ambitiously, determined to be as smart as her neighbors, does everything about her house, herself, bears children, takes care of them, and actually wears out her life with work, and, after death lives in the memory of her friends, as a woman who was "mighty smart at work" in her day.

A farmer's home is rarely beautiful and tasteful in its externals. So almost universally is this the case, that when an instance is found it is the theme of unwonted delight, and the cause of special remark. The barn very likely fronts the house across the street.

Carts and wagons stand upon ground which should be occupied by shade trees. There is no door-yard. There are no flowers. Everything is for use—everything suggests work, and work only. There is no indication of a life above this work—nothing to show the existence of a want above eating and drinking. The soul necessarily grows small under the dull pressure of a life like this. It is a life contemptible and unworthy in every respect in which it may be regarded. If this unmindfulness of comfort, and the polite amenities life, were the result of simple indifference, the case would be more hopeful; but there largely

prevails a degree of contempt for these things, which proves that perverted notions have become inbred and well nigh ineradicable. Many a farmer whom we know, holds in the utmost scorn all show of polite life. The man who talks bluntly, and helps himself at table without show of bashfulness, and holds the parlor in contempt, and turns up his nose at flowers, and rejoices in the thickness of skin upon his hands, and isn't "stuck up," is the popular man. What wonder is it that a boy brought up in this way, who accidentally gets a sight during absence at school, or on a visit, of a different and more exalted kind of life, should leave the farm, for other pursuits and places as soon as possible?

We love the life of a true man who is a true farmer. His lot is the noblest and sweetest—the most from free sickness and care that falls to mortals. But this stereotyped talk about the desirableness of a farmer's life, as it prevails in most localities, is the veriest gammon ever uttered. The farmer should be a gentleman. Some of them—nay, many in the aggregate—are gentlemen—and they make the noblest article of the kind we have. There is nothing in the farmer's profession that should make him awkward and boorish in the least. We trust that the young men now coming upon the stage will be something more than drudges—men who will take position in society—men who will delight to make their homes beautiful and comfortable, and who will do their share to throw the charm around the farmer's life which belongs to it—comfort, convenience, beauty, taste—the charm which shall make the life attractive to those who are bred in it, and which will secure for it the talent which now seeks a more congenial atmosphere in other fields.—*Springfield Republican*.

#### THE CULTIVATOR—FODDER PULLING, &c.

EDITORS SOUTHERN CULTIVATOR—I have induced two of my friends to subscribe to the *Cultivator*, and they are much pleased with it. I wish all its subscribers would agree to pay two dollars instead of one, that you might enlarge the sheet and illustrate it more fully.

Last summer, several friends engaged to try with me the effect of pulling corn upon the weight of grain. I unfortunately was taken sick at the time of "saving fodder," and consequently made no experiment. My friends did, however, (three in number), and the result was that the one who noticed the greatest difference found it to be three pounds on the bushel.

The weight of unstripped corn was (61 lbs.) sixty-four pounds per bushel.

The stripped corn was (61 lbs.) sixty-one pounds per bushel.

That would not pay for the waste of fodder in leaving it to dry on the stalks. We do not strip fodder in this section until a yellowish tinge is perceptible on the field of corn. Some might remark that that was the incipency of decay. That may be; but our horses prefer it then to Northern hay, and there is an inappreciable loss in the weight of the grain.

I was induced to engage in these experiments from articles in the *Cultivator* by careful and observing men showing a very great loss to those who stripped their corn. To those in the section of your correspondent I would say, cultivate grass; but to those in my section I would say, "strip" your corn and raise the grass too, if you can.

Another experiment of interest to Sea Island Cotton planters living on the coast, I made myself.

On the 23d of July I marked a form (square to Upland planters.) On the 1st of September it was a blossom.

On the 23d of July I marked a cotton flower. On the 12th of September it was an open boll.

From form to flower.....39 days.

From flower to open boll.....51 "

From form to open boll.....90 days.

I believe this occurs under the most favorable circumstances. Various casualties reduced me to only one form and one blossom out of several of each, to observe. The present year I will be more careful, mark more largely and note carefully, and if you think it of any interest will forward you the results, Providence willing.

SEA BLOOM.

*Liberty Co., Ga., 1857.*

#### GROUND PEAS OR PINDARS.

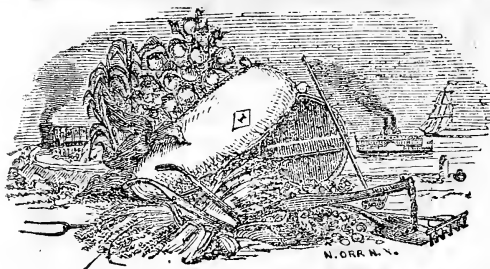
EDITORS SOUTHERN CULTIVATOR—I see in your January number a letter from Texas, the gentleman signing his name "F. B.," stating that he wanted to raise the Ground Pea, but did not understand the manner of cultivating. As I have had some experience in cultivating them for stock to advantage, I have concluded to write to you. If you think it worth anything, you can publish it; if not, throw it away.

In the first place, about the middle of February, I select the poorest field I have, and lay off the rows, three feet apart, and bed it up with a turning plow and open this bed with a scooter, say five inches wide; I then drop the peas (in the hull) in this furrow about eighteen inches apart, and cover them with a scooter by running on each side of them; I then let them lie there until the hull begins to crack; I then run a board over them. The board is about 15 inches long and about 7 wide, and 1 inch thick with a small notch cut in the middle of it, and is attached to the plow stock in the same manner as the plow. This answers for one working, and enables the pea to come up better. As soon as they come up so that you can see them across the field, if they are grassy, take a turning plow and side them with the bar of the plow next the pea, throwing the dirt entirely in the riddle and leaving the pea to stand on a ridge about 5 inches wide. Keep the grass off this ridge by hoeing until the pea begins to blossom; then take a large scooter and plow the row out good with it; after that cultivate entirely with a sweep, running farther and farther from the pea every time you work them. Be careful not to break off the vines after they have rotted down, for they will make more in the grass than they will after they are thus torn up either with a plow or hoe. This is the best manner of making ground peas I ever tried.

Paso.

March, 1857.

*SORGHUM SACCHARATUM.*—The *Bulletin d'Amélioration*, of Paris, has a notice in its September number of the North China Sorgho a Sucre, or Sugar Millet, from the pen of Dr. Tunal, Secretary of the Agricultural Committee of Toulon; he says that in the vine growing proprietaries in that region, the juice of the Sorgho has been profitably mixed and fermented with the juice of the grape, and without impairing the flavor of the wine produced. He, also, speaks of another species of Sorgho to which Leopold Wray gives the name of Sorgho at Taphy, or Sorghum of the Caffres; it is an earlier variety than the Chinese, and its cereal product is more abundant; hence M. Nayot who grows it successfully at Martinique, says that the grain is there ground into flour which is more nutritive than rice, and is preferred by the Coolies there to rice, as palatable food; its leaves also make an abundant and excellent forage, and the juice of the canes, the best of rum, (*Ward*).—*Genesee Farmer*.



# The Southern Cultivator.

AUGUSTA, GA:

VOL. XV. NO. 4.....APRIL, 1857.

## ANSWERS TO CORRESPONDENTS.

**SUGAR MAKING.**—W. B. T.—The new pamphlet of C. M. SAXTON & Co., noticed elsewhere, contains some of the information you desire. We believe a Mr. MILLER, of Savannah, can furnish a Mill with 3 horizontal rollers, to be worked by 2 horses or mules, for \$225. As we progress in the raising of the Chinese Sugar Cane, the necessary machinery will be much simplified and more cheaply furnished. See article headed "Sugar Cane Mills," &c.

**SNAP BEANS.**—C.—One of the best and earliest is the "Early Valentine."

**GARDENING BOOK.**—E. J. G.—WHITE'S "Gardening for the South," is the book for you. It costs \$1.25 *post paid*. Enclose us \$2.25 and we will send it and the *Cultivator*.

**FRUIT vs. MEAT.**—N. F.—A medical friend advises us not to eat so much meat during warm weather, but to substitute fruits—also, never to eat meat and fruit together. What do all the other doctors say?

**PRUNING.**—L.—If you prune trees just as the buds are swelling, it will retard the blossoming several days, and often save your fruit from late spring frosts.

**ARISTANDER**, of Pike County, Miss., will confer a favor by sending his full address to the Editors. We trust he will not suffer the pen he wields so deftly to lie idle. His articles on Drainage will be very acceptable to our readers.

"POND" will accept our thanks for the Watermelon seed, which we will plant.

## LOUIS E. BERCKMANS, Esq.,—PEAR CULTURE in the South.

ANY lingering doubts of the superiority of the climate of the South for the production of the very choicest Pears, are about to be solved by the careful experiments of our friend, LOUIS E. BERCKMANS, Esq., formerly of Belgium, but now of New Jersey. It is well known that M. Berckmans has devoted the greater part of his life, as an amateur, to the culture of fine Fruits, and that he was the friend and successor of VAN MONS and ESPERIN—whose extensive experiments with Seedling Pears he has earnestly and perseveringly continued. His collection of these Seedlings, alone, numbers over *Twenty Thousand*, from which we have every reason to expect some Pears of inestimable value for American culture. These seedlings, and samples of all his other specimen varieties of Fruits, M. Berckmans intends transferring from New Jersey to the more genial climate of the South, the coming autumn; and, with that view, has purchased a very suit-

able and attractive situation adjoining "*Fruitland Nursery*," (near this city,) where he designs establishing a *Southern specimen Orchard*, in which he will critically test all the most promising varieties of native and foreign Fruits, but more especially the *Pear*, which has always been his favorite study and specialty.

Having ample means and leisure—the most unbounded and tireless enthusiasm, and the stored experience of over a quarter of a century, as capital to begin with, M. Berckmans cannot fail of giving our Fruit culture a fresh and vigorous impulse; and we feel confident that his accession to our ranks will be hailed with the liveliest gratification by all Southern Pomologists.

## INTRODUCTION OF THE CHINESE SUGAR Cane, South.

As some *untruthful* statements respecting the introduction of this valuable new plant have been put forth by certain persons, it may be well to set the matter at rest by a few facts. D. J. BROWNE, Esq., of the Patent Office, is undoubtedly entitled to the credit of *first* introducing the seed into this country, having brought over from France about 200 pounds in the fall of 1854. Previous to any knowledge of the seed of Mr. BROWNE, however, and before we knew that any such seed was in the possession of the Patent Office, one of the editors of this paper (D. REDMOND) obtained, through PARKER, WHITE & GANNETT, of Boston, a few ounces of the seed, which this enterprising house had just imported from France. This seed was planted early in the spring of 1855, and had grown knee high before we were aware of the Patent Office distribution. Some of the original seed was distributed by us to Dr. ROBT. BATTEY, of Rome; R. PETERS, of Atlanta; ROBT. NELSON, (then of Macon); J. VAN BUREN, of Clarksville; Col. JOHN BONNER, of Hancock county, and many other agricultural and horticultural gentlemen of this and the adjoining States—nearly all of whom were sufficiently impressed with its value to save seed for more extensive planting last year (1856.) The syrup and forage experiments of Gov. HAMMOND, of South Carolina, Mr. PETERS and Dr. ROBT. BATTEY, of Georgia; ourselves, and many others, were all based upon the products of *this seed*; and any attempts of other individuals to circulate reports to the contrary are too base and unfounded for further notice. If any *credit* attaches to the *early* introduction of the Chinese Sugar Cane into general culture in the South, the writer claims it; and if any *discredit* is attached to it, he is also willing to accept it. So much for a rather small matter, to which we should not have thus alluded, had not one or two individuals taken the trouble to *misrepresent* it.

As to the *varieties* of the *Sorghum Saccharatum*, or Chinese Sugar Cane, we are not aware that the several importations of the seed thus far made into America, have exhibited any particular difference of product. There are, we believe, as many as *fifteen* different varieties of the *Sorghum Saccharatum*, and it remains for careful experimentalists to prove which of these will suit our soils and climates best. We doubt whether a more useful variety than we now have, for all purposes, can be obtained; but this matter is now in a fair way of solution; as we understand that Mr. WRAY is coming over from Paris immediately with all his South African varieties, for careful trial in the Southern States. We shall watch the result of these and all other trials of this plant with great interest, and report all important facts connected with the subject to our readers.

D. R.

**ERRATA.**—On page 106, second column, ninth line from bottom, after word "remain," insert "as they are, that the arial currents may also remain."

## OUR BOOK TABLE.

AMERICAN POMOLOGICAL SOCIETY, Proceedings of the Sixth Session, held in the city of Rochester, September, 1856. Boston: Published by the Society.

This volume contains full details of the most interesting and important meeting yet held by the Society, and throws much light upon the progress of Fruit Culture in America. This most delightful branch of rural industry is rapidly extending itself in every direction, and there is every prospect that our country will, in a few years be the Orchard of the World. We of the South are peculiarly favored by nature for the prosecution of Pomology, and can safely and profitably devote to it a portion, at least, of our study, time and capital. It is true that we need a different selection of varieties and a different system of culture from those of the North, in many respects; and it is, therefore, necessary not only that the South should foster and sustain Pomological Societies of her own, but that we should, hereafter, be more fully represented in the National Council of Pomology. The next meeting of the American Society is to be held in the city of New York in the fall of 1858, and we trust that the North and South will there meet together in friendly rivalry for the smiles of Pomona.

The President of the Society, Hon. MARSHALL P. WILDER, will accept our best thanks for the copy of Proceedings before us.

CHINESE SUGAR CANE AND SUGAR MAKING. By CHAS. F. SPANBURY, A. M., Late Commissioner at the Industrial Exhibition, London. New York: C. M. SAXTON & Co., Agricultural Book Publishers, 140 Fulton st. 1857.

The present is the third or fourth volume which has appeared on this subject during the past few months. It contains much information on the raising and crushing of the cane; boiling, clarifying and crystallizing of the juice, &c., and (with the exception of a trivial alteration in the Report of Col. R. PETERS) seems to be all correct. It may be obtained per mail from the publishers for 25 cents; and we commend it to all who desire to extend their knowledge of the Chinese Sugar Cane and its products.

THE MISSISSIPPI PLANTER AND MECHANIC. Devoted to Agriculture, Horticulture, and the Mechanic Arts. DAVIS & WILLIAMS, Proprietors. L. HARPER, LL. D., Editor. Published monthly at Grenada, Miss., at \$1.50 per annum.

This new laborer in the Southern Vineyard, starts with the right spirit, and a determination to do good service in the cause of agricultural improvement. We welcome it most cordially, and wish it the most gratifying success.

## TO CORRESPONDENTS.

Our table fairly groans beneath the weight, not only of valuable and appreciated communications for our paper, but also orders for agricultural books, trees and shrubbery, grafts, seeds of various kinds, letters asking information, &c., &c. We have worked almost every night the past winter, until the "small hours," and yet we are far in arrears with our correspondents. The long days of early summer, however, are now at hand, and we hope soon to be fully even again. It is, of course, impossible for us to answer, per mail, all the letters we receive, but where such answers are indispensably necessary we will endeavor to do so. For the present, we crave the indulgence of our friends, and pledge them our best efforts for the future.

## SUGAR CANE MILLS, BOILERS, &amp;c.

THE wide-spread cultivation of the Chinese Sugar Cane, gives rise to a general desire for more particular information respecting crushing mills, boilers, &c., and we, therefore, gladly avail ourselves of the kindness of a friend to furnish the following statement from a manufacturer of Mills, Mr. A. N. MILLER, of Savannah, Ga.

1st. Cost of a 2 roller, vertical mill, 18 inches long and 24 inches diameter, \$100. This includes rollers and bearings. The addition required will be to elongate the shaft in the driving roller so as to allow for a spur bevel wheel to be placed on when steam power is to be used.

2d. The cost of a 3 roller mill will be \$150, including bearings.

3rd. A 3 roller horizontal mill of the size named above with sides, frames and pan, will cost \$350. We make a snug 3 roller mill, rollers 12 inch diameter and 2 feet long with frame and pan; complete spur and pinion, for horse power, at \$225. These have proved large enough to answer a good purpose in Florida for 200 or 300 acres, and will keep a battery of five pans supplied.

4th. We do not make the pans and Kettles. Mr. B. H. WEED, of Savannah, has them on hand.

5th. A vertical 3 roller mill, with cast frames and pan, will cost the same as a horizontal (\$350), which (horizontal) is much preferable.

Another gentleman of Savannah writes:

"I have seen Mr. WEED, and the prices of Boilers are as follows:—60 gallons, \$13; 60 gallons, \$15; 80 gallons, \$18; 100 gallons, \$31; 150 gallons, \$35."

A late number of the *National Intelligencer* also furnishes the following:

## SORGHO SUCRE—HOW TO MAKE SUGAR.

The introduction of this article into our country, has called for an exercise of our mechanical talent to bring forward something to meet the experimenting demand for new sugar mills. In passing through the Institute Fair my attention was attracted to a singularly constructed revolving machine running upon three rollers; but, upon close examination, I found it to be a Chinese Sugar Cane Mill, invented by Mr. Hodges, of Cincinnati, Ohio, who has been so successful in improving the Little Giant Corn Mill, and has also, lately, invented a most complete agricultural steam boiler, one of which is also in operation at the Fair.

This Sugar Mill is certainly of a most novel construction. It consists of three vertical cast iron rollers, supported between strong cast plates, resting upon a triangular wood frame about eight feet on its sides. Under each corner is a large truck wheel so adjusted when working as to revolve in a circle, the shaft of one of the rollers occupying the centre of the frame and clutched fast to a timber below, preventing its turning, while the other two, being geared into it at the top, are made to revolve around it as the whole frame is turned by the horse. On one corner is a feed table, from which a man feeds the cane, which, having been acted upon by the two rollers, passes out upon a table on the other corner, which is removed as often as a sufficient quantity accumulates. The juice passes down through the bed plate and is received in a vessel made for that purpose. In a few minutes the truck wheels can be changed and the clutch removed, and the whole is ready to travel. There being no heavy beams to raise, posts to set, or over-head sweeps to provide, and at the same time so easily transported from place to place, it will prove to be just the thing needed by our farmers at this particular time, and from the cheapness of the article it must meet with ready sale. All interested in this line are advised to give it an examination.

## AGRICULTURAL GEOLOGY.

To intelligent cultivators, there is no study more useful and interesting than that of Geology in its relations to agriculture. Aided by analytical chemistry, a critical knowledge of the natural arrangements of different rocks, and of their constituent elements, enables one to decide in his own mind with considerable confidence as to the value of any given soil, formed mainly from the debris of known strata. Occasionally, an important exception to what might be expected in a particular locality occurs; and then it deserves to be recorded for the advancement of agricultural science. Having recently met with a case of this kind, we will briefly state the facts for future reference.

Spending a few hours not long since at Union Point, on the Georgia Railroad, we were invited by Mr. J. B. HART, the gentlemanly proprietor of the Hotel there, to visit with him a field which, as he said, was remarkable for its productiveness. So far as we observed from a superficial examination, there was nothing peculiar in the clay, sand, stone, or rocks of that place to distinguish it from other red soils in the neighborhood. There were, however, numerous specimens of a peculiar mineral on the surface of the ground that appeared to have been precipitated from water which had percolated through the underlying earth and rocks. On analysis this mineral yielded over fifty per cent. of lime mechanically united with clay and the peroxide of iron. Whether the presence of this lime had any agency in causing the peculiar fruitfulness of the field, each reader will draw his own conclusion; we have no doubt on that point. Our difficulty was to account for the presence of so much lime in that geological position. Neither *quartz*, *felspar* nor *mica* (the minerals that form granite) contains more than traces of lime. *Porcelain spar*, however, differs from *albite* (soda felspar) in having lime in addition to soda; while *hornblende* is well known to contain so much as from 12 to 14 per cent. of lime in its composition. But *stenitic* hornblende yields its calcareous base very reluctantly; and we are not aware that *basaltic* hornblende exists anywhere in the vicinity of Union Point. As both of these rocks are important in an agricultural point of view, we will give their constituent elements:

	Basaltic Hornblende.	Stenitic Hornblende.
Silica.....	42.24	45.69
Alumina.....	13.92	12.18
Lime.....	12.24	13.83
Magnesia.....	13.74	18.79
Protoxide of iron.....	14.59	7.32
Oxide of Manganese.....	0.23	0.22
Fluoric acid.....	—	1.50
	97.06	99.53

By examining the above figures, it will be seen that neither variety of hornblende contains either potash or soda; and it may be stated in this connection that *mica*, which abounds in both potash and magnesia, but in different varieties, contains neither lime nor soda. *Albite* is the only primitive source of soda, which is so abundant in the ocean and on all continents. Hornblende is unquestionably the principal source of all lime in soils and

stratified rocks; but, unfortunately, if universal fertility is desirable, neither hornblende, nor aqueous deposits of lime in any form are as general and abundant as cultivators may wish. The fact, however, that something like marl is sometimes found where least expected, should encourage planters to search for calcareous minerals wherever they may be located. Any substance appearing like marl or rock, that will effervesce on the application of vinegar, or some stronger acid, most likely contains lime. In granitic regions, such minerals are less frequently found than in more recent formations, or in districts of stratified rocks. Water that has passed over limestone in masses, often dissolves and carries with it this mineral to distant parts where the earth is nearly destitute of calcareous matter. In a similar manner, rivers collect from ten thousand different and distant sources, fertilizing salts of potash, magnesia, soda, and iron, which are deposited on all bottom lands overflowed in their course to the ocean. Where such fluviatile deposits are arenaceous, all soluble salts are more subject to be speedily removed by rains, than where clay rather than sand predominates. Whoever would *deepen* his soil on common agricultural clay, should stir the ground well to the depth he wants the roots of his crops to penetrate. Shallow tillage applied to land of superficial fertility, only aggravates the evil by making the soil *thinner* still; while deeper plowing deepens, first the roots of plants, then the mould and finally the available mineral food of crops even on poor land

L.

## Horticultural Department.

## PEAR CULTURE IN THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—Will you or some one of your correspondents who possess practical knowledge on the subject, give us, through the columns of the *Cultivator*, some information on the culture and management of the Pear Tree in our Southern country—both Standard and Dwarf—the varieties most suitable for our climate and best adapted for home use, or for market crop; for summer use or for keeping through the winter?

The Pear tree has been very much neglected at the South, while at the North and in Europe it stands highest in favor among choice fruits.

The culture of fruit for market is opening a new field for the enterprize of our people, and let us, by comparing notes, and seeking out information from all who have paid attention to the subject, obtain the best guide for these who are ready to embark in the undertaking. The experience of Northern and European fruit growers, though it might aid us somewhat, is not altogether what we want. Our climate and our soil differ materially. What with them would be a fall fruit, would ripen with us in mid-summer. There may be varieties which are well adapted to their seasons which would not thrive with us. Let us, therefore, have the experience of all practical fruit growers here at the South. I would like to see several columns of the *Cultivator* every month devoted to Southern Pomology; to the culture and management of fruits, with lists of all the most approved varieties.

Will you not give a helping hand to this suggestion?

R.

South Carolina, 1856.

[We will cheerfully comply with the wishes of our correspondent. The raising of fine Pears, Grapes, Peaches, Apples, &c., in the South for shipment to Northern and, perhaps, European markets, is destined to occupy the time and capital of a great number of our people; and that, at no distant day. An enterprising and tasteful



neighbor of ours is making the Pear a speciality, having started an orchard of over 1000 trees as a beginning; and another, who has been most appropriately styled the "*Pear King*," has hundreds of the choicest varieties, and more than *twenty thousand* Seedling Pears yet to be proved. We shall shortly publish a series of articles on the culture of this particular fruit by one of the best living pomologists, whose introductory appeared in our January number. We feel the deepest interest in Fruit Growing in the South, and will take a pride and pleasure in making the *Cultivator* the medium of communicating all valuable information on this subject to our readers.—EDS. SO. CULT.]

#### FRUITLAND NURSERY CATALOGUE---SOUTHERN Seedling Apples best, &c.

D. REED, JR., "Fruitland Nursery," Augusta, Ga.:

Dear Sir:—I have just received and examined your Catalogue of Fruit and Ornamental Trees, and am impelled to give expression to my hearty approval of the course you are pursuing in confining your collection of Apples to a few and select varieties, and with special reference to their adaptation to our Southern States.

It is a fact well known to Pomologists that though the different varieties of the Apple and the Pear embrace a great many hundreds of each, nevertheless, all those of the very best quality could be comprehended in a selection of 30 from each family of these fruits, leaving the entire long lists of the balance of second and ordinary quality; and yet nearly all nurserymen persist in parading in their long catalogues the high sounding names of hundreds of varieties of inferior quality and utterly unworthy of cultivation. I repeat it, I admire your judgment and resolution in thus departing from a custom so very common and injurious to the science of Pomology.

The 23 years experience I have had in making an orchard of Winter Apples, my utter failure in the commencement by planting Northern varieties, and my ultimate success finally, by commencing anew with Southern Seedlings, inspires me with confidence to speak boldly and positively on this subject. I, therefore, confidently assert that the very latest and best Northern variety of Apples south of 35°, north longitude, will be nothing but an autumn apple, and not hang well on its tree at that. I will also make another pompous assertion, that I have now in my orchard twelve varieties of native Southern Seedling Winter Apples that cannot be surpassed for excellence of quality by any other variety in the United States. Besides the varieties which I claim as my own selection, J. VAN BUREN, of Clarksville, Ga., has extended his researches far south of the field of my operations, and has made a valuable collection of late varieties of the Apple, which, no doubt, will grow and flourish side by side with the orange and the fig in Louisiana and Florida.\* The additions I have made to the list of native Southern Seedling Winter Apples, by bringing them to notice, are these:—Equineely; Junaluskee; Camack's Winter Sweet; Maverick's Winter Sweet; Callasaga; Elarkee; Tucket; Nickajack, if not a Summerour; Bachelor, and Callawhee.

All the above varieties are late keepers but the two last. The Bachelor is large, tender, juicy and brittle; and VAN BUREN, who is good authority, pronounces it the very best of Autumn Apples; with care, however, it keeps well until March.

The Callawhee is the *longest* of all apples that grow: a

perfect beauty, but as coarse grained and as insipid as the Buff.

The foregoing list of apples were nearly all originally found growing in old Cherokee Indian fields, and I have thought it best to give each one the Cherokee name of either the Indian or the stream where it originally grew. The Ducket, Camack's Winter Sweet and Maverick's Winter Sweet were found on the land of white men, and I, therefore, have not given them Cherokee Indian names. The balance of winter varieties that compose my orchard which I think first best are but few, to wit: Yellow Crank, Green Crank and Vincent; of these I know nothing of their origin. I have, of course, many others; but wish some amateur had them who is fond of a variety of high sounding names and a long imposing catalogue.

Respectfully your co-laborer,

SILAS McDOWELL.

Sugarloaf Farm, Macon Co., N. C., 1857.

P. S.—There are a variety of opinions in regard to the apple I introduced as the "Nickajack" being the same as the "Summerour." The appearance and quality are certainly much the same; and yet there are slight shades of difference in the color of the flesh as well as its taste. I purpose, if life lasts to have the subject put at rest at the next Georgia Fair, where I purpose exhibiting both the apples. S. McD.

#### THE PEACH TREE---PROF. MAPES' SYSTEM.

WE copy the following excellent suggestion from the *Horticulturist*, and a late number of the *Working Farmer*. We have seen Peach trees pruned in this way on the farm of Mr. PETERS, in Gordon county, Ga., that surpassed in vigor and beauty any that we have ever noticed elsewhere; and the trees and vines of Prof. MAPES, at Newark, N. J., fully attest his superior skill and management. We have adopted it in all our new orchards. Let our readers give it a trial:

#### ON THE CULTURE OF THE PEACH.

BY SAMUEL T. JONES, THE CEDARS, STATEN ISLAND, NEW YORK.

As you were pleased, in a late number, to introduce some approbatory remarks upon my management of the Peach, it may not be uninteresting to some of your readers to have a statement more in detail. It is not unusual to hear of the degeneracy of the Peach tree—that it is more subject to disease than formerly, and especially the *yellow*—and that the duration of the tree, in vigorous health, is limited to some six or seven years. I have even heard the belief expressed, that the *yellow* was transmitted, from generation to generation, by budding from trees apparently healthy, and, also, that the infection was made to spread from one tree to another.

In my judgment, founded upon the experience of many years, these ideas are erroneous not less than they are injurious and discouraging to the propagation and well being of the tree. Through the exercise of a little care and attention on the part of the grower, which is but a small return for the generous loads of delicious fruit yearly furnished by this tree, I have been enabled to preserve most of them in full vigor for a period of upwards of sixteen years.

The system I have followed first commences in the nursery, or shortly after the tree has been transplanted, by cutting out the top or central branches, leaving but three or

\*We have also late Southern Seedling Apples from the borders of Florida.—D. R.



four laterals, at a height not exceeding two or two and a half feet from the ground. This system is constantly followed in after years, which disposes the tree to grow with hollow centre, admitting light and air more thoroughly among the branches, and greatly facilitating the gathering of the fruit and the future prunings. These latter may be performed during the winter, early spring, or, moderately, during the summer, so as not to endanger the premature bursting or running into wood, of the buds destined to furnish fruit the following year. By means of an ordinary walking stick, furnished with a hooked handle, the topmost branches, even of trees pruned with hollow centres, may be bent down, and made accessible from the ground, until the the limbs become too rigid to bend, through extreme old age. This is by no means a small advantage, when among many hundreds of trees, it is considered that the full flavor of the fruit so much depends upon gathering it precisely at the proper period of maturity, and through which an examination by the touch may be had with facility of each separate fruit.

The next, and more important consideration, is to restrain the tree from exhausting itself by its too generous crops of fruit, and which can only be done, with facility, by diminishing the number of fruit-buds at the winter or early spring pruning. My constant instructions at this time, are "not to spare the knife," being well persuaded that it is necessary not only to the longevity of the trees, but also to the size and quality of the fruit. As the fruit is borne only upon the wood formed during the preceeding year, the rule is, first, duly to attend to the hollow form of the tree, which should be constantly maintained, and secondly, to head back each fruit-bearing branch to at least one-half its extent. The crop is thus easily kept within reasonable bounds, and if, after the lapse of many years, any of the main laterals become too rigid, or too much extended, new ones may be allowed to grow in their place, and the old ones then withdrawn. The vigor and growth of the tree seem to be surprisingly increased under this restraining system, as are also the size and quality of the fruit.

The third important point is, to guard the tree from its insidious and deadly foe, the worm. For this purpose, two examinations of each tree should regularly be made—one in the month of May and the other in September. Fortunately, the presence of the worm may easily be discovered at or just beneath the surface of the ground, by the oozing of the gum, and, if not duly attended to, will in a short time occasion the destruction of the tree by cutting around the bark, and thus diminishing or totally destroying communication between the tree and its roots. The worm is most speedily and effectually destroyed by scraping and probing them away through the aid of an ordinary oyster-knife, which is usually pointed and formed with a double edge. With such an instrument, a person may go through many hundreds of trees in a day, when the system is regularly attended to as above described, and it will be found that, with such care, but here and there only will a tree be infested and require attention.

As the Peach tree is so generous in its growth, and in its exuberant crops, it is necessarily a great exhaustor of the soil, and must have the support of proper manures. It is also essential to its prosperity that the soil should be kept open, and free from grass or weeds. I have found that the cultivation of many kinds of root crops requiring manures and frequent stirring of the soil, such as potatoes, beets, turnips, &c., are quite consistent with the health and vigor of the tree, but that, when the soil becomes bound through a dense growth of grass, which excludes, light and air from the roots, it soon dwindles, becomes sickly, takes on the *yellow*s, and dies. At the period of *staining of the fruit*, a large demand for silica is made upon the soil, which must necessarily be dissolved, and

conveyed through the roots, trunk, and branches, in a soluble state. It is probable that, along with carbonic acid, some kinds of alkaline manures, such as lime, or a mixture of one-third potash and two-thirds salt, contribute most powerfully to aid the efforts of the tree in effecting its solution, and, with this view, I have caused a handful or two, according to the size of the tree, to be applied upon the soil, and forked in to the distance of about three or four feet around each one, at the time of the examinations for worms in May and September. A dose of guano to the same extent, in lieu of the above, is also excellent.

Under this system, which is by no means expensive or burdensome, I am well repaid by regular and large crops of the finest fruit. I have never had a case of the *yellow*s unless, through some oversight, a tree has been neglected at the examination for worms, and the application of the alkaline manures has been omitted.

In my judgment, this disease is owing entirely to a want of attention or neglect of one of the important points I have adverted to, and when a tree, through neglect, has become affected with the *yellow*s, I have in no instance known it to extend to the other trees upon which attention had been duly bestowed.

Prof. MAPES, of the *Working Farmer*, says:—

The above, from the *Horticulturist*, accords mainly with our experience, but differs in some particulars. We will repeat these differences with a view to profit by the observations of others which may be called out in reply.

#### PRUNING.

When taking the Peach tree from the nursery row, we find its growth unequally distributed, the greater number of branches occurring towards the next row, and the lesser towards the next tree in the same row. We therefore remove all the branches and cut down the main trunk to two and a half feet. When put out in place, the branches will be thrown out equally in all directions. This being done in the spring, at each succeeding spring we cut back the new growth two-thirds its length, always cutting next to a wood or triplet bud, and never next to a fruit bud. By this method the tree has many instead of a few branches; they are short and nearer the trunk, forming a round low head, and fruit borne on the ends of branches cannot bend them below the horizontal position, as we have found that even when trained, the slightest depression below the horizontal line causes their decay.

#### PLANTING.

Having observed that fine fruit could only be obtained from trees around which the soil was thoroughly disturbed in early spring, we have thought it judicious to dig holes four feet in diameter and four feet deep, filling the hole with surface-soil, and not returning any of the sub-soil, but spreading it on the surface to become ameliorated by sun and air. We always place the tree one inch higher out of the ground than we found it in the nursery row, as it will probably settle half an inch or more the first year, and its cotyledons should never be covered with soil, or each of them will contain a peach-worm in a short time.

#### PEACH WORM.

We have used the various methods of dosing with boiling water, removal with a wire, application around the earth-collar of the salt and lime mixture, all or either of which seems to be perfectly effective.

Mr. James Galbraith, Gardener, of Newark, who is most accomplished as a Horticulturist, paints the earth-collar of the Peach tree with a very thin coating of the black mixture used in Newark for preparing cloth for wagon tops, and he finds this a sure preventive against the peach-worm and of no injury to the tree.

#### CULTIVATION, &c.

The soil must be disturbed around Peach trees in very

early spring, or they never yield full crops without self-exhaustion. We have used no other manure during the last few years, than the potash phosphate of Lime.

### THE STRAWBERRY.

EDITORS SOUTHERN CULTIVATOR—Your correspondent, "J. F. M." must have read the opinions of some wise Eastern and Western Botanists, who say: "there are no pure staminate or pistillate plants," though a man half blind can distinguish the blossoms at the distance of 10 or 15 feet. At an early day, we had male and female plants only. I had an eighth of an acre in Strawberries, and had to go to market to buy fruit of an illiterate market woman who never read a book in her life, but raised five times as much fruit on the same space of ground as others could. Aware of this, her neighbors, when she thinned out her plants in the fall and threw them on the road where they travelled, picked them up and planted them; and the result was, they never bore a single berry. The old woman's object was to deceive them.

When I was green enough to believe in the old woman's sexual character of the plant and published it, my doctrines were ridiculed beyond measure. But our market gardeners, aware of the old woman's success, became converts, and the fruit went down to one-third its former price. From seed nearly all are pure male or female plants. A portion perfect in male organs (stamens), and more or less perfect in female organs (pistils) and ocar more or less perfect fruit, more or less deformed ones, and more or less entirely barren. These, hermaphrodites, are the only kind known in Europe, till enlightened by our market woman, as the great Linnaeus and his followers held the doctrine. Wise men could not be expected to believe an ignorant market woman, wiser than themselves. I would advise "J. F. M." to get our seedlings, the Prolific, McAvoy's Superior, and the Extra Red. The first is hermaphrodite, and the only plant we have ever seen that bears a full crop of large, perfect fruit. It not only is attentive to its own flowers, but to all flowers in its vicinity, and pistillate plants require no other impregnator in the garden. The males, having no children to attend to, run at random, and soon kick all the women out of bed. If the Prolific should do this, the cultivator would sustain no loss, as no pistillate is as vigorous a grower. None bears a larger crop or larger fruit. McAvoy's Superior I deem the best of all pistillates. But she is not a Mormon. She is not willing to be one of the hundred wives, even to the head priest. If far separated from plants with male organs, many berries are imperfect. I should plant every third bed or row with the Prolific. Many deem a rich, loose loam, best for Strawberries. I mix with my rich garden mould, one half of the poorest and stiffest clay I can find. The result is, plants of much larger growth, that stand dry weather, bear more and larger fruit, and the plants are never thrown out of the ground in the spring, when the ground thaws. The Extra Red is not equal to the Prolific and Superior in quality, requiring more sugar. The fruit is all of good size, of great beauty of color, and an immense bearer, and very valuable as a market fruit. The Superior, if taken to market, requires to be taken with care, as the fruit is not firm. There are but few of these Seedlings yet cultivated for market, as they are a recent production and seldom, if ever seen in market, as it is sold by Mr. Heath and others, and private families, at an extra price. Mr. McAvoy, Mr. Schneike, Mr. Ernest, Mr. Jackson, Mr. Pentland and Mr. Kelby, and many other gardeners, have them for sale. The Prolific, the Superior and Extra Red were from seed I raised by impregnating Hovey's Seedling with the largest English hermaphrodite.

McAvoy planted the seed, and gave some of the plants, by my direction, to my tenant, Mr. Schneike. The Prolific was among a great number of plants sent him by McAvoy, and was first known as Schneike's Seedling. A premium was offered by our Horticultural Society for a Seedling Pistillate, superior to Hovey's Pistillate, or any other pistillate, of \$50, and after a full test, it was awarded to Mr. McAvoy.

N. LONGWORTH.

Cincinnati, Ohio, 1857.

P. S.—I have seen berries of the [Longworth's] Prolific and Superior that measured 6 inches.

### FIG CULTURE—FRUIT IN FLORIDA, &c.

We are indebted to Mr. MASON, of Monticello, Florida, for an article on the cultivation of Figs. Want of space in our columns compels us to confine ourselves to some extracts from his communication. We fully agree with him when he observes that "every farmer, from the great to the small one, may adorn his orchard with this delicious fruit." We also should recommend, as in all fruit trees, "*a rational and moderate pruning of the Fig tree and the selection of the most profitable varieties, since they grow equally well from scions.*"

That figs can be resorted to as an article of *actual food*, there is not the least doubt, since we know, as Mr. M. states, that "*the Greeks used figs as a portion of their allowance.*" Slaves in Greece were often kept on figs as the Arabs live on Dates.

Mr. MASON recommends drying the figs in ovens. This may be a necessity during the rainy season in Florida; but it is not so here; and figs dried in the sun are much better, nor does this process require much more time.

The author of the article complains of a deficiency of fruit through most parts of Florida. This remark agrees with the experience of a friend who lately spent some weeks in different parts of that State. He says:

"It is a strange fact that so few fruits are cultivated in a State where the use of fruit would prove so beneficial to the public health. Peaches and figs grow easily and bear profusely in this sunny soil, so well fitted for the peach tree, and moreover they almost always escape the spring frosts so injurious to our own orchards. The oranges this side of Palatka are a very uncertain product. Most of the celebrated orange groves are bitter or sour fruits, and it is to be feared that the same insect which destroys most of the orange trees in the extreme south of Georgia and north Florida, will soon find its way to the interior and southern part of the last named State. For the present winter a great number of orange trees and oleanders have been killed or badly injured as far as 30 miles southwest from Ocala. It is indeed surprising to witness in all climates that stange propensity of men to cultivate tropical fruits which seldom succeed, and are destroyed at least once in 10 or 15 years, while it would be easy to stock farms and plantation with fruits of easy raising and certain yielding. Amateurs try to cultivate the banana, so easily killed by the least frost, and requiring in all cases a covering or protection during the winter months. I have seen a native Florida apple seedling tree of fine appearance and well suited to the climate. Why should Southern apples not succeed in the rich soils of the hammocks? We can see no reason for that. People are too prone to admit theories when there are no facts to sustain these. Many of my acquaintances who supposed the Apple and the Pear could not succeed in Florida, candidly acknowledged that they had never tried, nor witnessed any trial of the

kind. That Cherries and Currants might not do well there, is very possible and almost probable; although silicious soils are required for the health of cherry trees. But Peaches, Strawberries, Figs, Apricots, Nectarines, and Grapes are certainly better adapted to that climate than to any of our middle States. The only objection is the prevailing trade wind rains, which often spoil the grapes and the second crop of strawberries; but this is not always the case, and some varieties could be selected either very early or very late which might escape the influence of those rains.

"I cannot recommend too much the constant use of ripe or dried fruit in a climate where bilious diseases are so prevalent, and where the main food, winter and summer, is bacon. Fruit is not only a blessing but a necessity for Southern climates, and nature by a wise dispensation has scattered innumerable species of fruits over the warm latitudes, while there is none in the polar regions where fish, meat, grease and oil, are requisites of animal life, and found in profusion all over the Arctic regions."

#### ORNAMENTAL TREES AND SHRUBS FOR the South.

EDITORS SOUTHERN CULTIVATOR—Surely we live in a blessed climate! Nature has, indeed, overwhelmed us with its rich gifts; for while our Northern friends with great difficulty can keep a Tea Rose, or even a Fig tree in pot alive during the snow storms of their severe winters, these and many other kinds of trees and plants grow almost spontaneously and very luxuriantly in our gardens. But what have we done to assist Nature in embellishing our homes? Very little indeed; nay! I may as well say: *nothing*; for the exceptions are "few and far between."

It is the ambition and ruling passion of our planters to brag of the number of their bags of cotton: no matter whether their house is surrounded with broom-edge and Jamestown weed growing in to their door and all kinds of weeds filling up their fence corners. I know that many a man despises the idea of planting a flower-garden, or surrounding his dwelling with ornamental trees and shrubs, because they cannot at pleasure be turned into Dimes and Dollars. But, surely! they will be turned into money, perhaps even to a fortune, though imperceptibly. They will make our wives, children and friends feel contented and happy, and cause us to enjoy many a delightful hour with our family, instead of hunting for meaner pleasures away from home.

Let us, however, hope that, although it *has been* thus a spirit of improvement has dawned upon us, as an indication of a rising civilization.

It is to the ladies that we are indebted for all the embellishment of our homes—out of doors as well as in-doors. Providence gave them a higher, a more pure appreciation of the beauties in Nature, and while the husband's only care is for the eatable produce of the garden (fruit and vegetables) these "better halves" keenly enjoy the higher pleasures afforded by beautiful flowers. Poor husbands! I pity you, for you do not know but half of the pleasures in this life.

As a matter of course, discrimination must be made in the selection of shrubbery, whether intended for a small front yard, a large garden or even a park.

It would, however, lead me too far if I here attempted to give rules for landscape gardening, a subject to which I will return at some other time. For the benefit of the ladies, therefore, I will at present merely enumerate such trees and shrubs as are worthy of a place in a Southern garden.

*Abutilon striatum*.—This fine shrub was introduced

from Brazil in 1837, and is always treated as a green-house plant. It is rather tender in this latitude, but does well a little farther south. Here the top is always killed in the winter, but a little litter or a pile of soil drawn up over the stump will protect it sufficiently, and its beautiful deep orange colored, bell-shaped flower, distinctly veined with dark crimson, will amply repay this little extra care. Of the several varieties raised from seed *A. venosum* far surpasses the original species in size, brilliancy of color and regular form. Another variety, *A. marmoratum*, deep pink, striped with white, is very beautiful, but as yet quite rare. Leaves palmate, deep glossy green. Three or four feet high and very erect.

*Amorpha fruticosa*.—A native Southern shrub, with long, upright, dark purple spikes of flowers, with brown stamens, which gives it a very pretty appearance. Its greatest fault is that it is indigenous. Five or six feet high.

*Amygdalus persica*, the Peach.—This tribe, besides furnishing the delicious fruit, also gives us several highly ornamental shrubs and trees. The little *A. pumila*, generally called "dwarf almond," is one of the earliest blooming shrubs, producing its beautiful double rose-like flowers in long wreaths. The double Flowering Peach growing to the size of a tree and covered early in the spring with magnificent pink colored double flowers, is well known. Two new varieties, however, the double white blossomed and the double crimson colored, have recently been introduced from China, and these three varieties, when planted together, unquestionably form a most magnificent object, and should be found in every garden which will admit of trees of such size.

*Calycanthus floridus*, Sweet Shrub.—Another well known, though highly esteemed native shrub. *C. macrocarpa* is a new variety with bright scarlet flowers and very rare yet.

*Capparis spinosa*, the well known shrub from which the *Capers* are obtained. It is a thorny, trailing plant, somewhat resembling a bramble, with nice white flowers. This shrub has no great beauty to recommend it, but being particularly adapted to dry and rocky hills it may be employed in larger gardens, to cover such unsightly places, and may be useful in yielding the well known condiment called "Capers," which is the flower buds steeped in vinegar.

*Cornus canadensis*, "Redbud"—a well known tree in our wood. There is a variety of the European "Redbud" with white flowers, which forms a fine contrast. Both are only fit for large gardens.

*Chionanthus fragrans* (Alspice tree, so called), was formerly known under the name of *Calycanthus procne*. It closely resembles the Sweet Shrub, but the flowers, which are highly odoriferous, are produced very early in the spring and are pale yellow. Five or six feet high. Propagated by layers.

*Gymnanthus virginica* (Old man's beard) is a well known and pretty native shrub, which needs no description.

*Cydonia japonica* (Flowering Quince), blooming as it does, very early in March or often even in February, when flowers are scarce, is a great ornament in a garden. There are varieties with pink, and with double flowers, but they cannot come up to the original species with scarlet flowers in regard to beauty and effect. They are best propagated with cuttings of the root 2 or 3 inches long, and such cuttings will often bloom in a few weeks after they are made. This shrub is often called *Pyrus japonica*.

*Deutzia scabra*, from Japan, with beautiful white bell-shaped flowers in elongated clusters, and produced in great abundance in April and May. Four to six feet high.

*Deutzia gracilis*, from East India, resembles the former, but is smaller. Both of them are propagated by cuttings.

*Fagus sylvatica*.—Who wouldn't know the majestic Beech tree, of our forests? Nobody, however, might think of planting it as an ornamental tree near a residence. There are several beautiful varieties, as the "Fern-leaved" and the "Weeping Beech," but the finest is the "Blood Beech," so called on account of its dark blood red foliage. In a large garden or park, and in scenery, among trees of a light green foliage, it forms a most striking contrast, and in such localities it is almost indispensable. Grows 50 to 60 feet high, and must be propagated by grafting on the common Beech.

*Forsythia viridissima*.—This beautiful shrub, of recent introduction, was first discovered by Mr. ROBT. FORTUNE, in China. Very early in the spring, say in February, it is loaded with bright yellow bell-shaped flowers, gracefully drooping, and blooming before the leaves have appeared. Easily propagated by cuttings. Grows 4 to 5 feet high.

*Genista Emerus*, also called *Coronilla*, a low trailing shrub whose slender branches are covered with bright yellow, pea-shaped flowers, blooming for a very long time. Easily propagated by seed and layers. Two feet high.

ROBERT NELSON.

"Fruitland," Augusta, Ga., 1857.

(To be Continued.)

REMEDY FOR BORERS.—N. S. Smith, of Buffalo, says, in the *Country Gentleman*, that he has found the following an effectual remedy for the borer:

Make a mound of soft earth around the root, rising about six inches above the place where the borers are at work. Then saturate this mound with a strong brine, made of common salt. Make the application twice within four weeks, any time when the ground is not frozen. Old pork or beef brine is just the thing.

Mr. Smith says the brine is taken up by the tree, and thus destroys the insects. He adds that it should be applied cautiously to young trees, and we fully agree with him.

#### MIGRATION OF PLANTS.

BOTANISTS have long been convinced that the facts connected with the diffusion of plants may often be explained by an inquiry into the structure of their seeds, the lightness of these, and their capability of transportation by winds; by their texture preserving them from destruction in the waters of the ocean; by the prevalence of particular currents in the air or sea; or by the presence or absence of mountainous barriers, or other obstacles to their dispersion. It has been observed that the God of Nature has provided a variety of methods for the diffusion of seeds. Many such have been noticed by naturalists, and their operations have been illustrated by facts well ascertained. The most important are doubtless winds, or rivers, or marine currents. The former convey the lighter kinds of seeds to an incalculable distance, and the latter are well known to transport others occasionally from the most remote countries. Besides these more general causes, it is well known that seeds are often conveyed from foreign countries which were transported in commerce. Various plants are well known to have been introduced in Europe by the accidental mixture of their seeds with rice brought from the East Indies, and these tropical countries have interchanged some of their productions in the same way. Some seeds are capable of preserving their vitality in the stomach of birds, and are thus propagated. Such are the mistletoe and juniper. A

number of facts are upon record which prove that the migration of plants by means of currents in the ocean to distant shores, where, if the climate is congenial to them, they form new colonies, is not a matter of conjecture, but a thing which actually takes place. Several remarkable instances of this description are recorded in the *Annales Académiques*. It is stated that the seeds of several plants of equinoctial countries are occasionally collected in the Hebrides.—*Prichard's Physical History of Mankind*.

—♦—♦—♦—  
We take pleasure in submitting the following proposition to our readers. The work of Col. TURNER will supply a want badly felt, and cannot fail of obtaining a large circulation:

**NEW BOOK—“COTTON PLANTER'S MANUAL”**  
Proposition to Educate Poor Boys.

*Messrs. Editors*.—Please do me the favor to announce that I have in press a volume which will prove very interesting to cotton planters, and the Southern people generally. This book being a compilation merely, I can speak of it with more confidence than I might under other circumstances. It is entitled "*The Cotton Planter's Manual*," and is made up of nine chapters. Chapter 1st, "The Ordinary Method of Cotton Culture;" 2d, "Dr. Cloud's Improved System;" 3d, "The Natural History of the Cotton Plant, its Species and Varieties;" 4th, "The Analysis of the Cotton Plant, with Suggestions as to the Proper Manures;" 5th, "Diseases and Insects Injurious to the growth of Cotton;" 6th, "The Different Uses of the Different Parts of the Cotton Plant;" 7th, "Professor McKay's History of the Cotton Trade from 1825 to 1850;" 8th, "Report of the State Department of the Cotton Trade from 1850 to 1855;" 9th, "History of Cotton and the Cotton Gin;" "Memoir of Whitney."

As to the culture of cotton, I simply give, in the *Manual*, papers from the most distinguished and successful cotton planters, such as Colonel Chambers, of Georgia, Governor Hammond, and Mr. Summer, of South Carolina, Dr. Cloud, of Alabama, Dr. Philips, of Mississippi, and others.

The balance of the chapters are compiled from sources equally unexceptionable. The whole subject of cotton culture, cotton manufactures, cotton trade, and cotton everything, is brought before the reader in a condensed form, and it will be very difficult to raise any question concerning cotton in any of its thousand ramifications, which does not find a solution in this volume. The statistics embraced in it will be found invaluable to editors, politicians and statesmen.

The book will be issued about the first of March by C. M. Saxton & Co., Agricultural publishers, of New York, at the low price of \$1, sent to any address, postage prepaid.

Having long felt the necessity of a more practical system of education for boys than now exists in Georgia, I have lately, in conjunction with another, established a school at this place, to which I will give much of my attention, though not actually engaged in teaching. I propose to devote the interest on all the money I make by the publication of "*The Cotton Planter's Manual*," for the space of five years, to paying the tuition of as many worthy boys who have not the means of obtaining an education, as the interest on the amount, whatever it may be, will warrant. The education of boys needs some stimulus, since it is generally overlooked in the mania for female colleges, which sorely afflicts the country.

Gentlemen of the press in Georgia, and elsewhere, will oblige an ex-editorial brother by the publication of this letter, and calling attention to the book, or by a simple announcement of the forthcoming volume. By doing so,

and sending me two copies of their paper, to the post office from which this is dated, I am authorized to say that they will receive from the Messrs. Saxton a copy of the *Cotton Planters' Manual*, free of postage.

J. A. TURNER.

Turnwold, Putnam Co., Ga., Jan. 27, 1857.

#### REMARKS ON THE FEBRUARY NUMBER OF the Southern Cultivator.

EDITORS SOUTHERN CULTIVATOR.—The leader, a lecture on labor, by Dr. LEE, is, in truth, a leader well deserving its name. When it is known that Dr. LEE has had a "finger in" getting up the agricultural statistical tables in New York, and in the Patent Office, laboring to have a full and correct detail; when it is remembered that Dr. LEE was well abused by certain Northern folks, then we will be better able to appreciate this lecture, as far as it goes. Capital is it; and passing strange that all of our folks have failed to see that the census reports, and statistics, give all that is made, and then all that is made from that, and even perhaps all from that again, thus valuing the article in hay, then when fatted as beef, then in leather and lastly in shoes.

"*Cotton Spinning, &c.*"—Who could be so indifferent to the weal of the South not to desire this? Yet, planters, don't be in haste. It is not done yet. Make up a bonus and test it. Don't attempt it unless you count the cost. It can be done, it will be done; but perhaps not yet. Much labor and expense has to be incurred. Pretty things on paper sometimes have a thorn when handled.

"*Rural Architecture, &c.*"—When will our people make their homes more pleasing to themselves and their families than elsewhere, and thus save some youth from all the evils of bad company and temptation? Is it not cheaper to give the youth so many delights at home that absence is painful, than to keep home the most irksome? Thus much to those who can only act from interest. To the philanthropist, the patriot, I appeal as a Christian to his brother, and ask him to try neatness and order, improved buildings and stock, flowers and shrubs, fruits and birds and fishes, and all that makes home more lovely and see its effect on the neighborhood. I could talk till the morning dawn; but why, this age—the California age—runs wild on making money and measuring a man's worth by his love for a dime.

"*Agriculture in Georgia.*"—"GEORGIA" is a progressive man, and so he ought to be; his State has done much, and I hope he will cause the Executive Committee to put their minds to the work and strike out for improving—not follow in the routine. I would add to his suggestions: procure the best plows, (yearly), hoes, planters, scrapers, gin, press, and seed, and test, through a searching committee, and publish for the good of the masses. Of course the Committee would be careful in ordering not to be gulled. Yet, many of the best would be sent gratis, knowing that that Committee would test fully before reporting. I would also suggest the Castor Bean, Sun Flower, testing bark of the Cotton for rope, twine and paper.

The people of the South look to the Executive Committee of the Southern Central Agricultural Society!!!

Gentlemen, I ask the application of all your thought.

"*Peas for Hogs.*"—Lard from hogs when fully fatted on peas, as also the pork, is as white, as firm and will show in July or August with lard, &c., from hogs fed on corn or sweet potatoes.

"*Answers to Correspondents.*"—"Plows and Plowing"—"The best turning-plow" I "know of" is the "Brinley Plow," made in Simpsonville, Ky., cost at Louisville, on board steamboat, \$6.50. "T. E. C. BRINLEY, Simpsonville, Ky." This, for such stiff land as I work, will do

better work and last longer than any of some twenty varieties now on my farm.

"*Plastic Cotton.*"—JAMES M. LEGARE, of Aiken, S. C., will make to himself a fortune and be a benefactor to the South. Cotton will yet be king, commerce to the contrary notwithstanding.

"*Cotton Crop of 1856.*"—Gen. McQUEEN is, no doubt, as all leading men of South Carolina are, first-rate, but his figuring is too small by 2 to 4 hundred thousand. The crop will run between 2,900,000 and 3,000,000 bales.

Yours with all respect, &c.,

A FRIEND.

#### CUBAN SUGAR PLANTATION.

A correspondent of the *Syracuse Courier* gives the following interesting account of one of the largest sugar plantations in Cuba:

This estate is very properly called the "Flor de Cubas," (Flower of Cuba.) There are other estates as large or larger, but none that have such perfect machinery, and which have laid out so much money for that, and on buildings. There are about one thousand acres of land, nearly three-quarters of which are under cultivation with sugar-cane, the balance being devoted to grazing and plantain fields. The product of this estate, of course, varies with different years; thus, last year, owing to the rains, they could not cut all their cane, and it fell short; but its present average crop is 10,000 boxes and 1,000 hogsheds of sugar, and its gross income at present prices will be from \$320,000 to \$350,000. Of this enormous sum about one half is absorbed by interest on its debt, and by its annual expenses. There are 650 hands—350 negroes and 250 Chinese. The rest are overseers, cartmen, coopers, engineers, etc. There are 80 ox-carts for drawing the cane to the mill, and 600 oxen, four being used to every cart, and they are relieved twice a day. There are many buildings in this village, for it is almost like one. Besides the sugar house, there is the dwelling-houses for the owner and for the overseers, the drying-houses, the hospital, the baracoons for the slaves, and even a nursery for the children of the slaves.

The sugar-house here is the principal attraction, and it is an enormous affair. It is all one floor and covered by a single roof, and its interior is somewhat similar to that of some of our large sugar refineries in New York. There are two large rolling mills for crushing the cane, each with three rollers six feet long, one placed on the top of two, the cane feeding itself and passing under one and over the other two rollers, it comes out squeezed almost dry, and as flat as a sheet of paper, the juice runs down into troughs. These rollers are set very close, within an eighth of an inch of each other, and the pressure is enormous. To drive these rollers there is an engine of fifty-horse power. The juice is then carried by pumps to a set of fourteen kettles, where by steam it is condensed, and then it runs through a body of carbon, or burnt bone, into another set of cisterns; it is then carried to a vacuum pan, where it is evaporated, then over a set of copper pipes for condensation, again through the charcoal for decoloring, then into another vacuum pan, where it is boiled to a crystallizing point. It is then carried off to another part of the building, and by copper ladles is emptied into the sugar moulds, holding about sixty pounds each, where in another day it is ready for claying. This process is only followed where it is intended to make box sugar, which is always clayed, while that packed in hogsheds is called muscovado, and is packed into the casks in a green state, where it is then allowed to purge itself for fifteen or twenty days, and is then ready for shipment. On this estate they make mostly clayed or box sugar; and the process of claying is this: The moulds containing the



green sugar are placed on a long floor in a room holding from 800 to 1,000 moulds; the point of the mould is below the level of the floor, which is made with square holes for their support; after the sugar has set in the moulds, the plug at the bottom is taken out, and on the base or upper flat surface of the sugar is placed a quantity of black pasty clay, which has the property of distributing the water very equally through it. The clay is wet and the water filters slowly through the body of the sugar, carrying with it all color, and leaving the base of the cone perfectly white. The process is repeated several times, and the sugar is kept in this house for about twenty days. It is then turned out of the moulds into large open, flat, wooden trays, and the different layers of strata of sugar is divided by a negro with a large cleaver into white, brown and yellow, that nearest the point is still colored with molasses and not very dry. These several classes are all kept by themselves, and the sugar is dried either by the sun or by ovens, and then packed into boxes holding about 400 pounds each. These are then nailed and strapped by pieces of green cow-hide in narrow strips, the boxes weighed, branded, and ready for transport to market.

#### THE JAPAN PEA.

SIR:—The extensive circulation of your paper makes me desirous of calling, through it, the attention of agriculturists and others to the merits of the Japan Pea, or *Cajanus bicolor*. It is a native of the East Indies and Japan, and has had but a limited trial among agriculturists here yet, but still enough to demonstrate its perfect adaptation to our climate and soil, its great productiveness, its excellence and wholesomeness as an article of diet, and its easiness of cultivation. I have sold all that I have raised the present season at \$4.50 per bushel, and think they have been more profitable than three crops of Indian corn.

They may be planted about the same time as corn, are well adapted to field culture in rows two or three feet apart and about a foot apart in the rows; they do not require a very rich soil, and forming a stiff bushy stem they need no poles to support them. They are also free from bugs so common among other peas, and are fit for house use all the year round; they appear well adapted for ship's stores, for which they are used by nations that cultivate them, and I would recommend a trial of them for the use of the military and naval departments of the government, as occupying much nutriment in a small space and requiring no other preparation for cooking than soaking about 24 hours in cold water.

Yours,

CALEB W. PUSEY,

[in N. Y. Tribune.

Forestville, Chester County, Pa.

#### BUILDING CISTERNS.

EVERY plantation that is scarce of water can have the deficiency supplied by properly constructed cisterns, and always have an abundance for stock and all other purposes. It is generally conceded that pure cistern water is more healthy and better adapted to the wants of man generally, than spring or well water that is strongly saturated with lime-stone. I will give my method of constructing cisterns, and with which I have uniformly been very successful.

To build them where you have clay or gravel foundation, it is necessary to commence your excavation circular digging down about three feet perpendicular, then make an off-set of eight inches all around, on which to rest the arch, which must be constructed of brick and made eight inches thick. After having determined the depth you wish it, proceed to dig about half the depth perpendicular, the balance finish up in the shape of the larger end of an egg; next, proceed to turn the arch, leaving an opening in

the centre about eighteen inches in diameter, then carefully clean all the loose earth that may have fallen in, and you are now ready for cementing.

Let the sand for the first course be coarse, cleanly washed and gravelly; for the second coat the same will do to run through a fine corn meal sieve. To prepare the cement take two parts of sand to one part of first quality hydraulic cement, namely: Louisville, Rosendale, or Roman; either will do. Be very careful not to mix more at a time than the plasterer can use without having to add water a second time. After you have first coated it, let it stand about one week to set; after which apply the second coat. If the cement is of good quality your cistern will do to use in about two weeks after.

Should it be necessary to blow your cistern out of rock you will have to make a lining of brick or stone, (either will do) being very careful to fill up all the backing with solid wall; as you value a good cistern, do not trust to puddling or ramming behind with dirt.

I give you the following table of sizes and capacity of cisterns in barrels, each barrel containing thirty-one and a half gallons:

		Barrels.	Gallons.
7 feet in diameter by 7 feet deep,		52	4
8       "       "       8       "       "		78	00
8½     "       "       9       "       "		98	12
9       "       "       10     "       "		122	18
9½     "       "       11     "       "		150	16
10      "       "       12     "       "		182	12
11      "       "       13     "       "		240	6
12      "       "       14     "       "		308	00


From the above table you can readily determine the size of any cistern you may determine to build.—*Tennessee Farmer*.

#### EXPERIMENTS WITH THE CHINESE SUGAR CANE.

*Editors Genessee Farmer*—On the 5th of May, I planted some seed of the Chinese Sugar Cane, in rows three feet apart. It came up, and I thinned it out to six inches in the row. It grew to the height of eight to ten feet. I fed part of it to my cows and hogs, and they eat it with great avidity. On the 16th of September, I cut 40 stalks, and pressed the juice out by passing them through a pair of tinsmith's rollers; the produce was 7 quarts of juice, which I boiled to one quart of good syrup, or at the rate of 18½ gallons per acre.

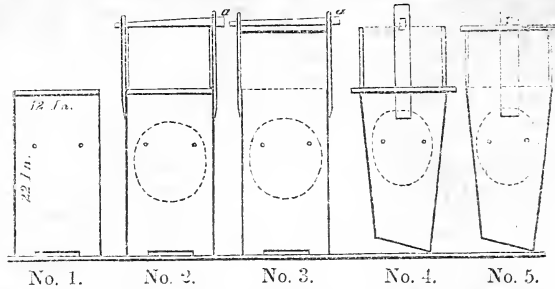
I concluded to try it again, in order to determine at what stage of its growth the stalks contain the greatest amount of sugar. On the 23d of October, the seed being fully ripe, and after some light frosts, I cut up 60 stalks, stripped off the leaves and pressed the canes as before, but as the rollers are very small, fully ten per cent. of the juice remained in the stalks; I also spilled four or five quarts of the juice. After all mishaps, the result stands thus: weight of 60 canes, 102 lbs.; juice, 14 quarts; good molasses, 5½ pints; dry fodder 4 lbs; seed, 6 quarts. Rate per acre of cane, 49,368 lbs; juice 1,694 gallons; molasses, 332 gallons and 3 quarts; dry fodder, 1,936 lbs; seed, 90 bushels—good seed weighs 40 pounds to the bushel.

Farmers keep up your spirits, for the sweet times are coming. R. D.,

 A farmer near Crediton, in England, who had suffered much from the devouring of his seed wheat by rooks adopted the expedient of strychnine, and steeping several bushels of wheat in the liquid, which he afterwards sowed in a field. The result was, the field was soon strewed with the dead bodies of these destructive birds, of which several bushels were collected.



## 'BEES AND THEIR MANAGEMENT.'



[In our last number, page 78, we were obliged to omit a portion of Mr. M. Genet's article, owing to the non-arrival of the cuts; which, with the description of his Hives, we now take pleasure in furnishing.]

No. 1, the body of my gum, holds 5 pecks; the upper apartment of No. 2 holds 2 pecks more. Nos. 2 and 3 show the front view of the complete gum—No. 2 shows the gum with the head on, the body of the gum and under the upper apartment—and this is the condition of my gum for receiving a new swarm, and it remains so until next spring or even later, unless the bees have filled it to the bottom; when I remove the head, using cotton smoke to drive the bees somewhat down, taking what pure honey they have; and then I place the head on top of the upper apartment, as per No. 3, the head and upper apartment being held on by a tapering stick (a), which passes through 2 laths, one nailed to each side of the gum, not a nail being used about the head; the draw pin holds all on tight and snug. The bees will then fill the upper apartment with pure honey, unadmixed with bee-bread. This plan gives double the amount of honey, and all or nearly all pure. Now for the why and wherefore.

The bees, when hived in No 2, will place the pure hon-

ey at the top of the body of the gum, establishing their brood combs in the middle of the hive, as described by the dotted circle, and which occupies about half the hive, and the bees deposit the bee-bread near their young, which is their principal food; and, having their combs once thus established, they will continue to raise their young in the same combs for four or five years, and would never remove their brood combs but for the fact that the cells, by the oft-repeated raising of young in them, become too small to answer the purpose any longer, and the queen will then scatter her eggs to any other part that will answer, and for this cause I kill them at 4 years old, or sooner, if new hives are abundant.

Now, after the gum is filled (that is the body of the gum) it will be perceived that the honey apartment will occupy only about a quarter of the body of the gum; then at the first robbing, by adding to the honey apartment a half bushel more space, where the bees will not deposit bee bread, is the great advantage of my style of gum, which is the simplest, and cheapest of any plan I know of that answers the same purpose.

Nos. 4 and 5 show a side view of the gums—No. 4 has the head on the body, and No. 5 the head on top.

**SOUTHERN PEARS.**—Our attention has been directed to the letters of a correspondent of the *Journal of Commerce*, from Chicago, Ill., in which the writer, speaks of the superior flavor and size of Southern Pears sold in that market. He says that he has been twice appointed on committees to test the qualities of Northern fruit, but has never eaten such before, particularly the Bartlett and Duchesse d'Angouleme. They are raised at LaGrange, Miss., which is the seat of Col. John Hebron, 8 miles from Vicksburg. His Pear orchard consists of 20,000 bearing trees and of 35,000 which are growing. The product of his fruits of several kinds the last year will reach \$30,000. His markets are New Orleans, St. Louis, Louisville, Cincinnati and Chicago. In the latter places a single Bartlett Pear early in the season retails among the wealthy at 50 cts. each. We are astonished more than ever that such little attention is paid to the culture of fruit by Southern planters in a climate more than all others adapted to the Peach, the Pear, the Grape and the Fig, and many varieties of Apples and other fruit.—*Sparta Georgian*.

**REMOVING EVERGREENS.**—There is no season for removing evergreens in the ordinary way like that when the buds are just swelling and the roots pushing out new fibres. There are fifty different opinions about the best time to plant evergreens. The above may be taken as ours and it is not given without plenty of trials of other modes. We except, of course, moving the trees with a large frozen ball during winter—but one which is only occasionally practiced. These who can get their trees with a ball of earth attached, during this winter, should not put off so very beneficial an undertaking.—*Exchange*.

**COMPOSTS.**—Lime is a substance which it is an error to use with composts in which we have barnyard manure; it is equally an error to mix lime with any compound rich in ammonia. The tendency of lime in all composts is to promote decomposition and to waste nitrogen, which escapes by union with hydrogen under the form of ammonia, which is the very treasure of the dung heap, and of most other manuring substances.—*Morton's Practical Agriculture*.

**STIRRING THE SOIL IN DRY WEATHER.**—Never stir sandy soil in dry weather, except to kill weeds. When sandy soil is dry, stirring it increases its dryness. Clay soil should be stirred in dry weather, enough to keep it perfectly pulverized. The pulverized earth at the surface acts as a mulch to keep the moisture below. All soil which is now perfectly fine is made more dry by being moved. But clay soils, when rain comes, becomes encrusted. The crust should be frequently made fine by the rake or hoe.—*Ohio Farmer*.

THE U. S. AGRICULTURAL SOCIETY held its annual meeting at Washington on the 14th January, and the result was deemed highly satisfactory to the members who were present. Hon. Mr. Guthrie, Secretary of the Treasury, and Hon. Humphrey Marshall, were the delegates from Kentucky, and were authorized, on behalf of Louisville, to guarantee \$20,000, to secure the Society from loss, if the next exhibition should be held in that city, and accordingly it was decided to hold it there.—*American Farmer*.

**A CHEAP FENCE.**—Being short of rail timber, and hedges require so much labor and patience, I have tried the following method of economizing, with perfect success. Plow and shovel up a ridge six feet wide and two feet high; then lay stones or blocks for the end of the rails to rest on, 1 ft. thick or more; this makes it 3 ft. high to the rail. Four rails high with poles along the middle well locked or staked, make it as high as eight or nine in the ordinary way. It should be well banked up to the bottom rail, and seeded down to grass. Hogs cannot get a foothold to creep through, neither can cattle knock it down or jump over, as the shoveling leaves a deep furrow on each side.—*Genesee Farmer.*

**EXTRAORDINARY PEA.**—We have in our office the longest specimen of a pea that we ever saw. The pods measure 22½ inches, and contain 20 peas in each. They were grown by Mr. Austin Babb, in the upper part of this district. Mr. B. informs us it is very prolific both in vine and fruit, and he thinks it will be found a most excellent renovator of the soil, as well as food for animals. The pea is larger than the common cow pea, but we think it is of the same species.—*Laurensville Herald.*

## Domestic Economy and Recipes.

**CURE FOR CHOLERA INFANTUM.**—The following is said to be a most efficacious remedy for the cure of this fatal and distressing disease among children, which parents would do well to cut out for reference:

Take a pound of wheat flour, wrap it tightly in a cloth, and boil it for three hours. When cold, cut off the mucilage and a ball is left resembling chalk. This is to be given to the patient in boiled milk, mixed with a small quantity of good port wine. The milk must be pure, and not from swill fed cows. The remedy is simple and within the reach of all.

**TO BLEACH MUSLINS AND WHITE CLOTHES BEAUTIFULLY.**—Take one pound of Chloride of Lime, and pour on to it in a jar one gallon of water; stir it well with a stick for fifteen minutes; then let it settle and pour off the clear liquor into clean bottles, and cork up for use. A tumblerful added to a tubful of water, in which the clothes are rinsed, will add very much to their whiteness. This must be made in a stone vessel.

**TO MAKE LEATHER VARNISH.**—To 1 quart of strong alcohol add one-half pound of gum shellac, 1 oz. resin, and one-fourth oz. camphor. Set in a warm place, with frequent stirrings for several days, or until all is dissolved; then add 2 oz. lamp black with a little alcohol—and it is ready for use, and as good as the best. If too thick, thin with alcohol.

**VINEGAR.**—Vinegar may be made from cider much quicker and better by diluting it one-fourth with soft water and exposing a large surface to the air, by filling the cask about two-thirds full and exposing it to a temperature of about 77°.

It may be made much quicker and cheaper by the following:—Molasses and whiskey, each one gallon; water, thirty gallons; cider, five gallons; brewer's yeast, one-half gallons; expose as above.

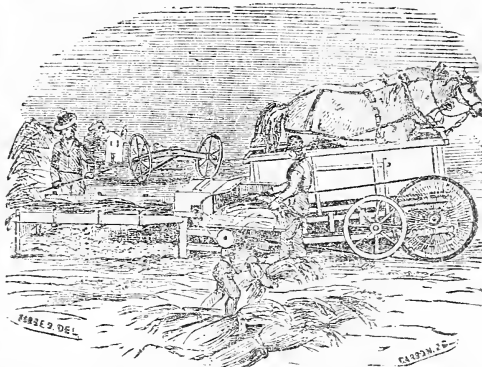
**TO CLEAN KIVES WITH EXPEDITION AND EASE.**—Make a strong solution of the common washing soda and water; after wiping them, dip the blades of the knives in the solution, then polish on knifeboard. The same would of course be effectual for forks. This simple method will no doubt greatly diminish the dislike which some servants have of this part of domestic labor.

**CONVULSIONS IN CHILDREN.**—Dr. H. G. Davis says: "In a few cases of convulsions in children, when I have arrived so late as to find the little patient, to appearance, in articulo mortis, and feeling that whatever was done must be done instantly, I have applied to the chest a napkin wet in quite boiling hot water. It was applied for a second, perhaps then after being raised, for two or three seconds the application repeated, thus just falling short of injuring the skin. The effect was in every instance to cause the child to take a full inspiration somewhat like a sigh, the pulse immediately returning when it had been entirely lost at the wrist."

**TO CLARIFY CIDER.**—Mix together one quart each of lime and clean dry ashes, and two quarts of new milk. Pour these into a hoghead of cider just from the press. In ten hours it will be fit to rack.

## Advertisements.

**NEW YORK STATE AGRICULTURAL Works, by Wheeler, Melick & Co.**



Double Power, and Combined Thresher and Winnow in operation.

**WE** are Manufacturers of Endless Chain Railway Horse Powers, and Farmers' and Planters' Machinery for Horse Power use, and are owners of the Patents on, and principal makers of the following valuable MACHINES:—Wheeler's Patent Single Horse Power, and Overshot Thresher with Vibrating Separator. This is a One Horse Machine, adapted to the wants of medium and small grain growers. It separates grain and chaff from the straw, and threshes about 100 bushels of wheat or twice as many oats per day, without changing horses—by a change nearly double the quantity may be threshed. Price \$128.

Wheeler's Patent Double Horse Power, and Overshot Thresher with Vibrating Separator. This Machine is like the preceding, but larger, and for two horses. It does double the work of the Single Machines, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing. Price \$160.

Wheeler's Patent Double Horse Power, and Combined Thresher and Winnow. [Shown in the cut.] This is also a Two Horse Machine; it threshes, separates the grain from the straw, and winnows it at one operation, at the average rate of 150 bushels of wheat and 300 bushels of oats per day. In out-door work, and for persons who make a business of threshing, it is an unsurpassed Machine. Price \$245.

Also Clover Hullers, Feed Cutters and Sowing Machines. Our Horse Powers are adapted in all respects to driving every kind of Agricultural and other Machinery, and admit of being driven by Horse Power, and our Threshers may be driven by any of the ordinary kinds of Horse Powers in use—either are sold separately.

To persons wishing more information and applying by mail, we will forward a circular containing such details as purchasers mostly want—and can refer to gentlemen having our machines, in every State and Territory.

Our firm have been engaged in manufacturing this class of Agricultural Machinery, 22 years, and have had longer, larger and more extended and successful experience than any other House. All our Machines are warranted to give entire satisfaction or may be returned at the expiration of a reasonable time for trial.

Orders from any part of the United States and Territories, or Canada, accompanied with satisfactory references, will be filled with promptness and fidelity. And Machines securely packed, will be forwarded according to instructions, or by cheapest and best routes.

WHEELER, MELICK & CO.,

April 57—1t

Albany, N. Y.

## CHINESE SUGAR CANE.

**J**UST received direct from France, the *genuine* SEED OF SORGHO SUCRE, or CHINESE SUGAR CANE, for sale in quantity or small packets.

Our spring stock of SEED is very full, and of the most valuable varieties in cultivation.

Seed Catalogues, and Pamphlets containing information in reference to the Chinese Sugar Cane, will be furnished on application, or forwarded to those who enclose us a postage stamp for each.

April 57—2t CURTIS & COBB, Seedsmen and Florists, 348 Washington st., Boston.

**"SORGHO SUCRE," or CHINESE SUGAR Cane:**

**I**TS History, Proper Method of Culture and Manufacture—Value as a Syrup or Sugar Making and Fodder Producing Plant, &c., &c., including Reports of many Practical Experiments in the South and other portions of the United States. Compiled from various authentic sources, by D. REDMOND, Assistant Editor of the *Southern Cultivator*.

Copies of the above Pamphlet and PURE SEED furnished by PLUMB & LEITNER, Augusta, Ga. See their advertisement in another column.

**LANDS IN SOUTH WESTERN GEORGIA For Sale.**

**T**HE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany by 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

Albany, Ga., Oct. 10th, 1856.

W. W. CHEEVER, Nov 56—tf

## COTTON SEED.

**1.000** BUSHELS—Olive—very pure. Price fifty cents a bushel at my gin, or forwarded to cash orders at fifty cents per sack extra. Also, 1,000 bushels "Crowder," equally pure and very productive, an early opener, growing and making till late. The young bolls do not dry up on the stalk, nor does it shed as other varieties do. Address DR. A. W. WASHBURN, Nov 56—6t Yazoo City, Mississippi.

## STOCK FARM FOR SALE.

**I** WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Somerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska," a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

JAMES R. FERGUSON, June 56—tf Memphis, Tenn.

**"FRUITLAND NURSERY," AUGUSTA, GA.**

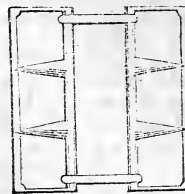
Fruits and Flowers for the South!

**T**HE Subscriber has just issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH, in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants, per mail, FREE OF POSTAGE, by addressing D. REDMOND, Augusta, Ga.

Dec 56—tf

## PATENT BUCKLE.



**I** DESIRE to sell the Right of making and selling the new DOUBLE-JOINTED PATENT BUCKLE, and will thankfully receive offers for it until the 1st day of June next. The Buckle is the best that has yet been invented, one answering for the whole wardrobe and should be made of gold or silver. The Right of one State is worth a fortune. I will sell the Right of one or all the States together.

Gum Creek, Dooley Co., Ga., Nov. 24, 1856.

WM. SLADE, Jan 57—5t

## BLACK ESSEX HOGS.

**F**OR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address Nov 55—tf R. PETERS, Atlanta, Ga.

## GARDENING FOR THE SOUTH

**T**HE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address WM. N. WHITE, Athens, Ga. May 56—tf

## AUGUSTA SEED STORE.

(Nearly opposite the United States and Globe Hotels.)

**T**HE Subscriber has received and will continue to receive throughout the season, his stock of genuine and fresh GARDEN SEEDS—crop of 1855. The usual deductions made to country Merchants. J. H. SERVICE, GIANT ASPARAGUS ROOTS, White and Red ONION SETS, White and Red CLOVER, LUCERNE, BLUE GRASS, &c., &c. Jan 57—3t

## A. LONGETT,

**D**EALER IN FERTILIZERS, No. 34 Cliff street, New York. PERUVIAN GUANO No. 1—Government brand and weight on each bag. COLUMBIAN GUANO, imported by the Philadelphia Guano Company. SUPERPHOSPHATE OF LIME and BONE DUST. Jan 57—3t

## FLOWER SEEDS FOR THE SOUTH.

**H**AVING experienced the great difficulty in obtaining reliable Flower Seeds suitable to the South, I have raised a small quantity, which I am now offering to the public. I would particularly draw the attention of the Ladies to the unsurpassed collections of DOUBLE STOCK GILLIFLOWERS, TEN WEEKS STOCKS, CARNATIONS, GERMAN ASTERS, WALLFLOWER, HOLLYHOCKS, and many others:

AT TEN CENTS A PAPER.	Delphinium Ajacis.
Double Stock Gilliflowers,	Dianthus chinensis,
" Ten Weeks Stocks,	Double Balsams,
" Imperial Stocks,	Elicrysium leucidum.
" Autumnal Stock,	Papaver somniferum.
" Carnations,	" mackanthum,
" Wallflower,	Emilea flammca,
Dianthus imperialis plenissima,	Gomphrena globosa,
Rhododula Mauglessii,	Iperis speciosa,
Heliotropium peruvianum,	Ipomea Quamoclit,
Pharbitis limbat,	Lovatera trimestris,
Polygonum lenitifolium.	" Murseli,
AT FIVE CENTS PER PAPER.	Phlox Drummondii,
Adonis aestivalis.	Portulacae Thellusoni,
Ageratum coeruleum,	Poterium Long visorba,
Amaranthus tricolor,	Roseda odorata,
Althea rosea,	Salpiglossis variabilis,
" chinensis,	Scabiosa atropunpunea,
Ammobium alatum,	Gilia tricolor,
Antirrhinum majus,	Senecia elegans,
Aster chinensis,	Tagetes erecta,
Calendula crista galli,	" patula,
Calliopsis bicolor,	Verbena Melindris,
Catanouche bicolor,	Viola odorata,
Ce osea cristata,	Zinnca elegans,
Celosia indica,	Xeranthemum annuum,
Centourea cyanus,	Gnaphalium tetidum.

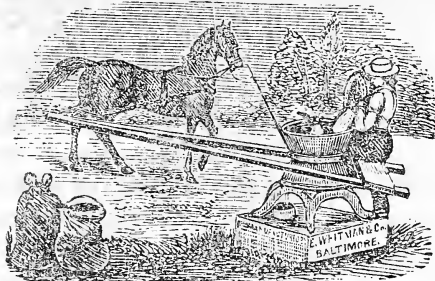
Orders, enclosing the money and a three cent postage stamp for every dollars worth of seed sent to PLUMB & LEITNER, Augusta, Ga., or to the subscriber, will meet with prompt attention.

Feb 57—tf

ROBERT NELSON

**C**OLUMBIAN GUANO, imported by the Philadelphia Guano Company. A. LONGETT, Agent. Jan 57—3t New York.

# YOUNG AMERICA CORN AND COB MILL. The Cheapest and Best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

March—tf

JOHN & THOS. A. BONES.

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, jumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, and all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses.

### PRICES.

2½ Horse Power.....	\$375
4 do. do. ....	500
6 do. do. ....	700
8 do. do. ....	900
10 do. do. ....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

D. C. LOWBER,

98 Magane St., New Orleans.

Feb57—1y

## CENTRAL RAILROAD.

### CHANGE OF SCHEDULE.

ON and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

#### BETWEEN SAVANNAH AND MACON.

Leaves Savannah Daily at.....	5.00 A. M.	and	12.15 P. M.
Arrive in Macon ".....	2.15 P. M.	"	1.00 A. M.
Leave Macon ".....	11.45 A. M.	"	9.30 P. M.
Arrive in Savannah ".....	10.45 P. M.	"	7.30 A. M.

#### BETWEEN SAVANNAH AND AUGUSTA.

Leave Savannah.....	12.15 P. M.	and	8.30 P. M.
Arrive in Augusta.....	8.45 P. M.	"	5.30 A. M.
Leave Augusta.....	6.00 A. M.	"	4.30 P. M.
Arrive in Savannah.....	1.30 P. M.	"	10.45 P. M.

#### BETWEEN MACON AND AUGUSTA.

Leave Macon.....	11.45 A. M.	and	9.30 P. M.
Arrive in Augusta.....	8.45 P. M.	"	5.30 A. M.
Leave Augusta.....	6.00 A. M.	"	4.30 P. M.
Arrive in Macon.....	2.15 P. M.	"	1.00 A. M.

#### BETWEEN SAVANNAH, MILLEDGEVILLE & EATONTON.

Leave Savannah.....	5.00 A. M.
Arrive in Milledgeville.....	2.45 P. M.
Leave Macon.....	11.45 A. M.
Arrive in Eatonton.....	5.00 P. M.

W. M. WADLEY, Gen'l Superintendent.

Savannah, Ga., Oct., 12, 1855.

July56—tf

IMPROVED SUPERPHOSPHATE OF LIME, of the best brands, for sale by  
Jan57—3t

A. LONGETT,  
34 Cliff street, New York.

## GARDEN HAND PLOWS.



THESE well known and most useful little PLOWS, worked by hand, with six different working irons to suit such work as may want to be done, attached to each at pleasure, will be found at all the Hardware Stores in this city, by wholesale or retail.

March57—2t

B. PICQUET.

## PURE AND VALUABLE SEEDS.

HAVING experienced the great difficulty in obtaining reliable FLOWER SEEDS, suitable to the South, I have raised a small quantity, which I have placed in the hands of D. B. Plumb & Co., Druggists, in this city, for retailing. I would particularly draw the attention of the ladies to the splendid collection of Stock Gilly Flowers, Ten Weeks Stocks, Double Wall Flowers, and German Asters.

Dec56—tf

ROBERT NELSON,  
Augusta, Ga.

## FRESH GARDEN SEEDS.

WE are now receiving our supply of choice GARDEN SEEDS, which we warrant to be GENUINE and of the crop of 1856. Those who purchase our seed may rely upon getting a fresh article as we keep no OLD seed on hand.

Merchants supplied at a liberal discount.

D. B. PLUMB & CO.,  
Broad-st., Augusta, Ga.

Nov56—4t

## AUGUSTA NURSERY.

Extensive Collection of Selected Roses and Southern Raised Fruit Trees.

F. A. MAUGE would respectfully inform the amateurs of Roses, that he has now a superb collection of new and rare varieties, which he will be happy to supply such as may desire them. His prices to Nurserymen will be as low as those of any Nursery at the North, and his Rose Bushes will be generally of a larger size. He has also made recent additions to his stock of FRUIT TREES, and can now supply fine sorts of the following varieties: Apples, Pears, Quinces, Peaches, Nectarines, Apricots, Plums, Cherries, Soft Shell Almonds, English Walnuts, and Hazelnuts.

Also, GREEN-HOUSE PLANTS, such as Camelia Japonica, Orange and Lemon Trees, &c., and hardy Flowering and Ornamental Shrubs. Orders from the country will be promptly attended to, and Trees and Shrubs carefully packed and directed.

Osage Orange Fruit for sale at \$1 per dozen.  
Catalogues of Roses and Fruit Trees will be sent gratis, to all post-paid letters. Address F. A. MAUGE, Augusta, Ga.

Dec56—4t

## DIOSCOREA BATATAS--NEW CHINESE Potatoes---or Yam.

THE experience of another season in the cultivation of this new esculent, warrants us in confirming all we said in relation to it last year. Wherever it has fallen into the hands of judicious cultivators, and received the care necessary to its full development, the result has been entirely satisfactory in all respects; and it may confidently be reaffirmed that of all the esculents proposed as substitutes for the diseased potato, the Dioscorea Batatas is certainly the only important one. We can now supply small roots from 4 to 9 inches long, carefully packed for transport at \$3 per dozen; and small seed tubers (such as we sold last year) at \$1 per dozen; and \$7 per hundred; these latter can be sent by mail. Description and directions for culture furnished with each package. Where practicable, parties are invited to examine the roots before purchasing, as we have them constantly on view.

NEW CHINESE NORTHERN SUGAR CANE.—Seed of this celebrated and invaluable plant in packets at 12½ cents each (prepared by mail 25 cts.) 75 cents a pound.

CHUFAS or EARTH ALMOND—\$1 per 100.  
JAPAN PEAS, 50 cts. a quart. NEW ORANGE WATER MELON (true), CHRISTIANA MUSK MELON; KING PHILIP CORN; SWEET GERMAN TURNIP, etc., etc., with the largest and most comprehensive assortment of VEGETABLE, FLOWER and FIELD SEEDS to be found in the United States.

Catalogues on application.

Jan57—2t JAS. M. THORBURN & CO.,  
Seedsmen, &c., 15 John st., New York.

THORBURN'S WHOLESALE PRICED LISTS of Vegetable, Field, Tree, and Flower SEEDS for 1857 will be mailed to Dealers enclosing a three cent stamp.

March57—1t.

J. M. THORBURN & CO.,  
15 John street, New York.

BOYD'S EXTRA PROLIFIC COTTON SEED  
200 BUSHELS of BOYD'S EXTRA PROLIFIC COTTON  
SEED for sale in sacks from 1 to 5 bushels in a sack.  
Price \$1 per bushel JOHN M. TURNER  
Nov56—4t Augusta Ga





## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collection embraces the Dendur Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vita; Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address—  
[Dec 56—tr] D. REDMOND, Augusta, Ga.

## GRADE CASHMERE GOATS.

FOR SALE, a few half blood BUCKS at \$30 each. Address  
[Nov 55—tr] R. PETERS, Atlanta, Ga.

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next.  
Dec 56—tr RICHARD PETERS,  
Atlanta, Ga.

## THOROUGH BRED NORTH DEVON AND Ayrshire Bulls.

I OFFER for sale a few choice young BULLS, bred from superior Stock, with full pedigrees. For particulars, address me at No. 23 Fulton street, New York City. A. M. TREDWELL,  
Importer, Breeder and Dealer in North Devon and Ayrshire Cattle  
Residence Madison, Morris county, New York.  
Dec 56—3mo

## CHINESE PROLIFIC PEA!

### THE GREAT FORAGE PLANT AND RENOVATOR OF SOUTHERN LANDS!!

THIS very remarkable new Field Pea is by far the most valuable and productive variety ever introduced. It is well adapted to poor land, yielding at least three or four times as much as any of the common varieties, and producing a growth of vine almost incredible. It grows in clusters of from 12 to 20 pods, each pod containing 10 to 12 peas, and is of course far more easily gathered than any other. The vine never becomes hard, but is soft and nutritious from the blossom to the root. It is greedily eaten by stock, and the Peas are unsurpassed for the table in delicacy and richness of flavor.

We subjoin the following extracts—the first from Ex Governor Drew, of Arkansas, and the remainder from several well known citizens of South Bond, in the same State:

Dear Sir—The evidences afforded me while at your house by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is beyond anything in the way of a great yield I have ever known.

I think I am within bounds when I say the yield, in pea and vine, is at least five times greater than any other pea—clover, or grass for hay. And the waste peas were equal to any other full pea crop; and from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr. Wm. F. Douglass, has done well in making arrangements for the extended culture of this invaluable Pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands than guano or any other application to the soil, while, at the same time, the yield is likely to be as great on such lands as on the rich bottoms of Arkansas.

Respectfully your obt. serv't.,

THOS. S. DREW.

To ROBERT H. DOUGLASS, Esq.

Dr. Goree, of Arkansas, estimated the yield in Peas or Hay at "five times that of any other Field Pea he had ever seen planted." W. R. Lee, Esq., says he "has never seen anything to equal it," and that it should "supersede the use of every other," and the following certificate settles the question of its value for Hay:

"We, the undersigned, saw "that pea-vine," and think, after the peas were gathered, that the vine would have made as much hay as a stout man could carry; it covered a space of ten or twelve feet in diameter, and lay from one foot to eighteen inches deep."

WM. C. MEEKS.  
B. W. LEE.

South Bond, Ark., Sept., 1856.

Col. J. B. L. Marshall, Assistant Engineer on the Little Rock and Napoleon Rail Road, says:

"If the Southern Farmers will give it a fair trial, they will find it to be the greatest Pea both for table use and for feeding stock, now known. They fatten hogs faster than anything I have ever tried. On the 1½ acres Mr. Douglass had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of ground of the same size," &c., &c.

For further particulars, see Circulars furnished gratis by the Agents.

We are prepared to send out a limited quantity of these Peas, put up in cloth packages to go by mail. They will be forwarded, free of postage, to any address on receipt of \$1.50, or otherwise at \$1 each. Current funds and postage stamps will be a satisfactory remittance. Our names will be printed on all packages of the genuine seed.

Any one not perfectly satisfied with the Pea will have his money returned. Address (with plain directions for mailing)

PLUMB & LEITNER, Augusta, Georgia.

\*Dealers in Seeds and country merchants can be supplied, to a limited extent, at a limited discount, if their orders are forwarded immediately.

Feb 57—tr.

## FRUITS FOR THE SOUTH!

### "FRUITLAND NURSERY," AUGUSTA, GEORGIA.

THE Subscriber takes pleasure in offering for fall and winter planting, choice TREES of the following varieties of Fruits, all of which have been found to be well adapted to the South:

APPLES—a succession, ripening from May until December, and keeping until June, mostly of Southern origin, and many but recently introduced to the public—price, 35 cents each.

APRICOTS—such fine varieties as Moorpark, Breda, Hemskirke, Peach, &c., &c.

PEACHES—the choicest collection ever offered, including in addition to all the best Northern and Foreign sorts, a splendid variety of new Southern Peaches not found in any other Catalogue. The present year's stock of Peach trees is quite limited in number, so that early orders are advisable. Price, 25 cents.

NECTARINES—Boston, Stanwick (new), Hunt's Tawny, New White, and all other first class sorts.

PEARS—DWARFS and STANDARDS—a selection of the very best, recommended by the American Pomological Society, and most of which have been fully tested in the South.

PLUMS—all the largest and best varieties.

CHERRIES—Twenty or more select kinds, worked on the Mahaleb Stock, as low Standard, or Dwarf—the proper form for the South.

GRAPES—the rooted plants of the Catawba, Isabella, Scuppernon, Warrington and other native varieties, for the table and for wine-making. Price, 25 to 50 cents.

FIGS—strong rooted trees of 6 or 8 of the best kinds, furnishing a successional crop throughout the entire season. Price 25 to 50 cents.

STRAWBERRIES—a selection from 35 or 40 varieties, including Hovey's Seedling, Longworth's Profic, McAvoy's Superior, and all the new and desirable sorts. Price, \$2 to \$3 per hundred.

POMEGRANATES—strong rooted trees of the sweet and sub-acid varieties. Price, 25 to 50 cents.

BLACKBERRIES—the famous Rochelle or "Laxton"—also, the Albino or "White Blackberry." Price, 50 cents each—\$5 per dozen.

RASPBERRIES—The American Black, Red Antwerp, &c. Price \$1.50 to \$3 per dozen.

HEDGE PLANTS—such as Osage Orange, \$8 to \$10 per thousand; White Macartney Rose, cuttings, \$10 per thousand; Cherokee Rose, cuttings, \$5 per thousand; Fortune's Yellow Rose, cuttings, &c., &c.

ALSO—

A very choice selection of ROSES, new and rare EVERGREENS, FLOWERING SHRUBS, &c., &c.

Labeling, packing, marking and shipping, carefully attended to.

A new descriptive Catalogue now ready, and will be sent to all who desire it, free of postage. Address—

Nov 56—3;

D. REDMOND Augusta, Ga.



## WILD CAT BANKS.

For the information of the public, and to protect them against fraud and loss, we subjoin a list of the Wild Cat Banks in Georgia, not one of which we deem worthy of confidence or credit. Let the people, therefore, beware of the bills of these Banks:

MERCHANTS' BANK, of Macon.  
 INTERIOR BANK, Griffin.  
 LaGRANGE BANK, LaGrange.  
 BANK OF GREENSBORO', Greensboro'.  
 SOUTHERN BANK, Bainbridge.  
 CHEROKEE INSURANCE & BANKING COMPANY, Dalton.  
 PLANTERS' & MECHANICS' BANK, Dalton.  
 NORTH-WESTERN BANK, Ringold.

## BROKE.

MANUFACTURERS' & MECHANICS' BANK, Columbus.

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1857!

## SOUTHERN CULTIVATOR,

A MONTHLY JOURNAL.

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume commences in January, 1857.

## TERMS.

ONE COPY, one year.....\$1 TWENTY-FIVE COPIES.....\$20  
 SIX COPIES.....5 ONE HUNDRED COPIES.....75  
 ALWAYS IN ADVANCE. No paper sent unless the cash accompanies the order.

The Bills of all specie-paying Banks, and Post Office Stamps received at par.

Remittances, by mail (post-paid) will be at the Publisher's risk. ADDRESS WM. S. JONES, Augusta, Ga.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

"FRUITLAND NURSERY," AUGUSTA, GA.  
IMPORTANT NEW ARRANGEMENT!

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which numbers many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen orchards of M<sup>r</sup>. BERCKMANS contain all the best and rarest varieties of other fruit known in Europe and America, from which we shall cull everything of especial merit. It is not our object to multiply varieties, but to select, with the greatest care, a few of the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M<sup>r</sup>. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, Roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at very moderate prices.

Full Descriptive and Priced Catalogues, sent post paid, to all applicants. Address, D. REDMOND, Augusta, Ga.  
 April 57—tf.

## REAPING MACHINES.

HAVING had the KENTUCKY HARVESTER thoroughly tested we now confidently recommend them to Planters as the best Machine for Southern use ever offered.

CARMICHAEL & BEAN,  
 Augusta, Ga.

April 57—3t

HORSE POWERS, THRESHERS, GRAIN  
Cradles, Fan Mills, &c.

WE are now prepared to furnish GRAIN GROWERS, with MCCORD'S HORSE POWERS, a light and excellent article.

BOGARDUS' HORSE POWERS, all Iron, heavier than McCords.

PAPLIN'S and WARREN'S HORSE POWERS.  
 Iron frame THRESHERS; Baltimore, New York and Georgia made THRESHERS, from \$30 to \$60.

FAN MILLS, of the best make and different sizes.  
 GRAIN CRADLES, a light and strong article.

Also, BELTING, and all articles necessary for gathering and cleaning Grain for market. CARMICHAEL & BEAN,  
 Augusta, Ga.

April 57—3t

## LAWSON WATERMELON SEED.

A FEW packages of genuine "Lawson" WATERMELON SEED, at 10 and 20 cents each. If per mail, 16 or 32 cents may be sent, to cover postage. Address  
 April 57—tf PLUMB & LEITNER, Augusta, Ga.

## CARMICHAEL &amp; BEAN,

DEALERS IN HARDWARE, CUTLERY, and AGRICULTURAL IMPLEMENTS, Augusta, Ga.

We are, also, Agents for the following articles:—SALAMANDER SAFES, made by Starns & Larvin, New York; LITTLE GIANT CORN AND COB MILLS: Indian Rubber BELTING, PACKING and HOSE, made by Boston Belting Company; ATKINS' SELF RAKING REAPER; CIRCULAR SAWS, made by Hoe & Co., and Welch & Griffith's HORSE POWERS; FAN MILLS, THRESHERS and SMUT MACHINES,  
 CARMICHAEL & BEAN,  
 Augusta, Ga.

April 56—C1y

## SHEEP FOR SALE.

ONE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS, of the Webb stock.

June 56—tf

RICHARD PETERS, Atlanta, Ga.

# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV. AUGUSTA, GA., MAY, 1857. NO. 5.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH—(MAY)

#### THE PLANTATION.

This is one of the very busiest months on the plantation, and no one who desires to make a good crop has any time to lose now.

Corn, not already brought to a "stand," must be properly worked at once, first "running round" close to the row with a long scooter, after which use a shovel, and then keep the ground stirred between the rows, as often as once every 10 or 15 days, running quite shallow, with a harrow, cultivator or a horse hoe, followed by hand hoes to clean and mellow the space between the hills. Do not break any roots, or use the turning-plow, at all, in working this crop, except to "lay by" with; and even then it is unnecessary.

Cotton must be brought to a "stand," and scraped and moulded without delay. The moulding must be done as soon after scraping as possible, so that the roots of the young plants may not be left exposed to the scorching effects of the sun.

Oats, Rye, and perhaps Wheat, may be cut in some places, the last of this month, and the ground afterwards planted in Sweet Potato "draws," or Cow Peas.

Cow Peas should be now sown broadcast or drilled, in deeply plowed, and well manured land. If intended for hay, the land must be rich; if seed only is desired, moderately fertile land will answer. The Chinese Prolific Pea should also be planted 4 by 4 feet, 1 or 2 Peas in a hill, to secure a future supply of seed.

Sweet Potatoes should be planted extensively, as heretofore recommended. Select a rainy or cloudy day, or the cool of the evening (from 4 P. M. till sundown) for setting your "draws"—dip the roots in a batter of water thickened with fine rich soil, make the holes with a pointed stick (or "dibble")—set the "draws" deep into the mellow ground, and press the earth firmly around them.

Sow Corn in drills for fodder—opening the drill wide and deep with a long shovel, and scattering the corn along

in it at the rate of about 3 bushels per acre. It may be cut, when in the tassel, and fed green, or dried for winter use. Sow, also, Chinese Sugar Cane, for fodder, in the same way, on a small scale, to satisfy yourselves of its great value. If allowed to stand, it will mature its seed if planted even as late as the middle of June or 1st of July. Make the ground very deep and rich, as previously directed.

#### THE KITCHEN GARDEN.

Transplant Egg Plants, and continue planting Snap Beans every 10 or 12 days.

Hill up Bush Beans, before blooming, to keep them upright when bearing.

Work carefully around Melons and Cucumbers, with a pronged hoe—prune the vines so as to distribute the fruit equally, and if the striped bug is troublesome, try the effects of sprinkling the vines with weak camphor water, which is made by tying up in muslin, a piece of gum camphor as large as an egg and infusing it in a barrel of rain water. To prevent the wind from bundling up the vines, throw a shovelful of dirt upon them, here and there. The main point, however, in this month is the proper thinning of the crop. Never leave but two, or, at most, three plants of Melons, Cucumbers or Squashes in each hill.

All vegetables will be greatly benefited by a judicious thinning, for a crowded growth is just as injurious to them as if they were overgrown with weeds.

Hoe and stir the soil frequently around your plants, and, whenever you possibly can, mulch them; it will improve them wonderfully.

Plant out Tomatoes towards the end of this month for a late crop, and cut them down until the early patch is giving out; then let them go to fruit, and you will have plenty until frost.

Sow Cabbage seed the latter part of this month, for fall and winter use. Flat Dutch and Bergens are the best. Try also, the genuine "Buncombe" seed, if you can obtain it.

Transplant Leeks—they will be fit for use all next winter.

If you are raising Onions, from the black seed, thin out the rows and transplant. Such transplanted Onions will come in late, and last till Christmas.

Finish cutting *Asparagus* by the middle of this month, or the first of June, at farthest.

Continue to plant *Okra*, *Squashes* and *Melons*, of the different varieties, *Lima* (or *Butter*) *Beans*, *Sweet Corn*. Transplant the *Tomato*, *Pepper*, *Cabbage*, *Cauliflower*, *Celery*, &c. Plant *Carrots*, *Beets*, *Salsify*, *Parsnips*, &c., for a succession.

Now is also the proper time to feed your plants with liquid manure, [say one pound of Peruvian Guano or two pounds of hen manure dissolved in 10 gallons of water]. Once a week is enough, and give plenty of pure water after the application of the manure.

The *Strawberry* patch should receive a good working with pronged hoes, to avoid injuring the roots. After thus loosening up the soil, replace the mulching, and there will be little trouble with the weeds for the remainder of the season. If cultivating solely for fruit, the runners must be scrupulously kept down.

Weeds will now begin to infest your gardens, and must be ruthlessly destroyed at their first appearance.

#### THE ORCHARD AND FRUIT GARDEN.

Destroy *Catterpillar's* nests wherever found on your fruit trees. If the branches are crowded or over-laden with thickly-set fruit, thin out one-half of it, and the remainder will be enough better to pay for the trouble.

Dust over the *Plum* and *Nectarine* trees with a mixture of quick-lime, ashes and sulphur, while the dew is on the leaves, to destroy the curculio.

#### THE FLOWER GARDEN.

Shade, water, weed, cultivate and mulch your flowers and notice the general directions for last month in this department.

#### DIVERSIFIED AGRICULTURE.

UNDOUBTEDLY more money may be realized from a plantation by devoting it mainly to the production of one staple, concentrating thereon all the energies, thought and muscle at the command of the proprietor, than by dividing his attention, labor and capital among a variety of crops. He is, however, far more likely to impoverish the land which he cultivates, when thus actively pushing it to the extreme point of its natural fruitfulness in the growth of a single plant, like cotton, corn, or wheat, than when he studies and follows Nature in her admirable system of *diversifying* her vegetable offspring. Nature is the cultivator's best teacher. Her great lessons are full of wisdom. The barrenness which follows over-cropping and bad tillage, is an admonition, warning man of his folly and the certainty of the punishment that ensues from such practice. The positive waste of labor in the prolonged cultivation of poor land is itself an evil of fearful magnitude, and one that grows much faster than population. In a word, a State, or community that sells its soil to purchase gold, ever makes a bad bargain; for a State cannot emigrate with its gold, nor can its inhabitants subsist without the perennial fruits of agriculture. From this condition of things there is no escape, provided we assume that the chief end of man is to make money by wearing out the soil. This unsound philosophy, this corrupted morality, must be probed to the bottom, and removed from

the popular mind, before it will receive and cherish a better system of tillage and husbandry.

A man may innocently chase dollars as children chase butterflies, and derive much pleasure from the employment: but he is prone to overstep the line of innocent labor, or amusement, in his too eager pursuit of riches and pleasure. Educated to want, or believe he wants, all that any virgin earth can possibly produce, he is not content to restore to the land a full and fair equivalent for the wealth it yields him. If he would honestly do this, no arated field would ever dishonor his draft. But to check on a bank where one has never deposited funds, and expect such checks to be paid, and never dishonored, betrays a lamentable want of common-sense. We are forever drawing on the soil for food, raiment, and every species of wealth, and think it a great hardship if required to deposit in return one-tenth the amount we receive. Nay, we complain of losing money, when we simply cultivate a variety of crops, that every element of fertility may do its share in production, and that we may delay the final exhaustion of the particular ingredients which form corn and cotton plants. We find it convenient to forget that the next generation will need good crops of these important staples quite as much as we do, and that posterity can only have fertile land by the care and foresight of those who have cultivated it before them. All work for the highest immediate returns in cash—not for the greatest results in the course of the lifetime of a community. This short-sighted, narrow-mindedness, which approximates man to the beasts that perish, this blind worship of the Present with its gewgaws and its filth, regardless of the Future, alone forbids agricultural improvement. If man would consent to look ahead, to consider effects in connection with their causes, he would discover that wealth obtained by over-taxing the powers of Nature, whether in man himself, in working animals on the farm, in cultivated plants, or in tilled earth, cost more than it is worth; and more than it possibly can be worth in the economy of Infinite Wisdom. God requires that all extremes shall be avoided; else we might be happiest when surrounded by extreme heat, or by extreme cold; by extremes in eating and drinking, or extremes in hunger and thirst; by extreme mental or bodily effort, or extreme laziness and stupidity. Our greatest sin is in carrying our *love of money* to an extreme; so that it is now, as of old, "the root of all evil." This undue love of money prevents alike the improvement of man, and of his defective agriculture. Progress in planting and husbandry depends entirely on progress in knowledge and sound morality. Without the latter, man ever refuses to do his duty. He exaggerates his rights, and denies his obligations to others when told that he is bound to leave every acre of land as fruitful as he found it, for the public good. While Nature and Science suggest a diversified agriculture, the public good demands it.

This alone will give the community a plenty of wheat, meat, wool, vegetables, and other necessities, as well as of the great staples, corn and cotton. A mixed system of tillage and husbandry, of gardening and fruit-culture, is indispensable to meet all the varied wants of civilized society. Let these wants be mainly supplied from the soil near the consumers, and each consumer can easily furnish the essential fertilizers to maintain the normal productiveness of the land that feeds and clothes him. The fact can hardly be too often repeated that of all the animals on this planet, man is the only one who impoverishes the soil; and that is done by this bad system of tillage and husbandry. Nature and science do not countenance any conduct of this kind; it is founded in ignorance and folly, like most other popular errors. Long established habits, and customs, extending to all nations, appear to demand a continuance of the practice of taking

everything possible from cultivated fields, and giving very little or nothing in return. Commerce is King, and is pretty sure to push and enlarge his dominion, regardless of any damage that may be done to the planting, grain-growing and grazing lands of continents and islands. Commerce rarely looks beyond immediate profits; and, consequently, it does much to foster a hand-to-mouth practice of agriculture. Intelligent commercial men ought to consider the future wants of their calling, and co-operate with those far-seeing cultivators and land-holders, who seek to augment and perpetuate the natural resources of the farming interest. But instead of this, commerce everywhere urges planters and farmers to give the largest possible quantity for export, without bestowing a thought on the sad consequences of covering whole States with barren, and deserted old fields. Few have the courage to commend this desolating work; and yet, strange to say, fewer have the higher courage to labor earnestly to remove the popular mistake.

A reformation is most likely to ensue if we can introduce a diversified agriculture into districts now distinguished for the growth of one staple, and for their general dependence on buying nearly all the other articles consumed.

When the favorite staple is high, and the year favorable to its production, of course they make heaps of money; but they take great risks, and in turn are compelled to pay high prices for mules, negroes, provisions, groceries, and other plantation supplies. The same Divine law that covers a plantation with many kinds of forest trees, and many species of smaller plants, in a state of nature, adapts it to the economical production of different crops, whose aggregate value is considerably larger than that of any one crop, for a series of years, possibly can be. Hence, the most thorough study of the latent resources of arable land serves only to confirm the wisdom of having winter wheat, rye and barley, and winter grasses, to grow in winter and early spring, as well as cotton and corn to grow in summer and autumn. Every advantage of climate and of soil deserves serious consideration; but this is never done by men of one idea. To accumulate the food of their staple in the earth where it is expected to flourish, is a refinement on planting a little beyond their sphere of thought and action.

And yet, all winter growing cereals and grasses can easily be made to yield valuable manure, and on that account, if no other, they deserve attention. A wool-grower in New Hampshire recently sold his staple crop for \$15,000, and at something like sixty cents a pound. His advantages for keeping sheep will not compare with those of some thousands of our readers. The profits of sheep husbandry are little understood at the South, or the business would be more practiced, and encouraged by legal restraints on the depredations of dogs. Rightly managed, sheep will do much to enrich a farm. In what way they do this on the best wheat-growing farms in New York, Pennsylvania and Ohio, we will explain in another article. Hogs, horses and cattle will effect the same renovating purpose, where one fully comprehends both the means, and the objects sought. As no animal produces something from nothing, at first view, it would appear absurd to say that the mere existence and growth of domestic animals on a farm could add to its fruitfulness; and without good husbandry, such is the fact.

By the terms "good husbandry" we mean a thorough knowledge of the principal ways and means by which soils are both improved and deteriorated, and the careful avoidance of the one, and adoption of the other. Almost all farms have living springs of water upon them; and on all arable land, water that has passed into the ground and appears again in a running fountain, brings with it in solution both the mineral and organic food of plants.

Stock of all kinds drink daily of such water, and in the course of a year, drop in their solid and liquid excretions, over the fields where they are kept, many pounds of fertilizing matter derived from water alone. These elements of fertility never would get out of the spring, branch or river and upon distant uplands, without the aid of the live stock in question.

Again: almost all low grounds more abound in the food of plants than uplands, for the obvious reason that water is ever passing from the latter to the former, and quite as much beneath the surface as above it; and in both cases water conveys the raw material of crops from the higher to the lower soil. Grasses, cane-brake, and all other food for stock being uniformly more abundant along the banks of rivers, creeks, and smaller streams, and in low grounds generally, all graminivorous animals go to these grand sources of luxuriant herbage to fill themselves, and then often seek higher and drier land on which to ruminate and sleep. Hence on the latter much of their valuable manure is deposited. In this way nature gives back to uplands, a part of the essential elements of vegetation which she had removed in the water that percolated through the earth to form a living spring or branch. Can man learn nothing from these interesting facts? Yes, he may learn much.

1st. That so far as plants of any kind are formed of elements brought to them in moving water, or air, the land whereon they grow never can be exhausted.

2nd. Such crops or plants, like those of the irrigated parts of the Nile valley, may all be exported without injury, or be made into the very best of manure to enrich any other cultivated earth.

3rd. Live stock, having the natural power of cheap locomotion, can be driven by hundreds and thousands from parts where their food is scarce to those places where it most abounds, and back again, partly to transfer the cheapest possible manure from one place to another, and partly to produce a full supply of working horses, mules, and oxen, of milch kine, wool and meat.

4th. This plan of drawing fertility from all running water, and all low ground where water largely evaporates, co-operates admirably with that feature in good husbandry which draws largely on the subsoil both on uplands and lowlands, to increase the fruitfulness of the surface soil. All green crops grown and plowed in are of the latter character; it is, however, often unwise to depend exclusively on the subsoil and the atmosphere. Manure of some kind is needful; and the question is how to produce it at a moderate and reasonable cost?

Our advice is, examine your low grounds carefully in that connection. Whether they shall be in good pastures meadows, corn, or cotton, your local circumstances, and professional knowledge can best determine. If drainage is necessary, you will practice it. All we venture to say is, that good bottom lands are under-valued at the South for their capacity to enrich the adjoining uplands, as well as yield the great staples of the country. There is, however, more difference in the quality of low grounds, from one extreme to its opposite, than in arable uplands. This diversity affords another argument in favor of a truly diversified system of tillage and husbandry. In this way one is able to make the most of any local advantage, whether by irrigation-and-rainage, breeding and rearing stock, or simply planting in connection with wheat-culture. L.

DEATH FROM SNUFF.—The *Intelligencer*, published at Austin, Texas, notices the death of a little girl some 5 or 6 years old, from the effects of taking snuff. She was so addicted to its use, child as she was, that she literally ate it and lived on it. Let this circumstance be a warning to all snuff-dippers.

## PLANTATION HYGIENE.

BY DR. JOHN M. TURNER, OF AUGUSTA, GA.

The word Hygiene is derived from the Greek *hygieia*, meaning health, and consists in properly carrying out such measures in our daily vocation as are calculated to prevent the causes of disease from acting deleteriously on the human system. Or it may be defined "the art of preserving health," so that any remarks made on such a subject would naturally presuppose a knowledge of those laws that govern the animal economy in the state of health; such, in medical language, is termed Physiology. Having made such department of science (combined with agricultural pursuits) my study for more than twenty years, and having, during that time, been situated in different sections of country, on different varieties of soil, where diseases of a diversified character prevail, and where many observations of a practical nature I have thought were made, emboldens me on the present occasion to offer these reflections, and here I remark that it is not speculative theory, but deliberate conclusions to which I am led after a careful and long investigation of the principles of hygiene, based on observation and experiment, as it ought to be conducted on a plantation, that I propose to offer to this Society.

"The importance of hygiene has ever been recognized by mankind. To none is a thorough knowledge of its principles more useful than to those persons whose avocation it is to till the earth, and yet, perhaps, by none is an acquirement of such more neglected. If to be informed on the subject of Vegetable Chemistry is necessary to enable the agriculturist to raise, surely a knowledge of Vital Chemistry is necessary to the maintenance of the animal raised. The laws which govern the functions of organs within their bodies, then should be studied by farmers, that they may be able to estimate correctly, not only the impressions made, but the cause, making such impressions upon their own and other bodies around them. It is impossible to enjoy uninterrupted health and at the same time to be ignorant of the law, and nature and locality of the agents calculated to deteriorate it."

So long as farmers are ignorant and indifferent on this subject, so long will they have need for the "Doctor and his noxious Drugs."

I have noticed planters, among whose family I practiced my profession, come every year to me to get a list of family supplies of medicine, and who kept their medicine chest, and who devoted much of their time to the perusal of *Ewel's Medical Companion*, *Buchan and Gunn's Domestic Practice of Medicine*, particularly in reference to the remedial treatment of their negroes; but who neglected in a lamentable manner to acquaint themselves with the causes of their maladies—an adequate knowledge of which would enable them to keep their hands in the field—and avoid that solicitude always attending "domestic treatment," and save the subject themselves much unnecessary suffering.

That "an ounce of prevention is worth a pound of cure," is a trite, but truthful saying, and never was its applicability more correctly put forth than in the prevention of disease. The preservation of the health of our slaves and our own family should be a primary consideration with farmers. Their restoration to health when diseased, a secondary one.

As Southern planters, our capital consist very much in our slave property, and any means that could be devised to render it most valuable, that would enable us to realize the greatest profit on the capital invested, we think ought to deserve our serious consideration. Then it is most obvious that a preservation of their health, by which the original stamina of a good constitution is preserved unimpaired, even the prolongation of life is attained, must be the very

basis of such an end; and furthermore we would urge the principles on the scale of humanity. Providence in His wisdom has seen fit to cast their lot among us as servants, and as servants they should be treated, not as felons who had violated our Penal Code of Law, and were sentenced to spend their few days at the bench of some needle-grinder or in the quarry of a stone-cutter. Thus, on the principle of humanity, as well as interest, does it behoove the Southern planters—slave owners—who have the management of negroes, to institute, on all proper occasions, an inquiry as to the causes of their maladies, and when ascertained to adopt such measures or course of policy as shall be deemed best to remove them; or if this be impracticable, to render them harmless. And while investigating such causes we would not confine ourselves to such as produce active and dangerous maladies, but even to those of a chronic character and such as affect their *procreative relationship*; for the raising a family of young negroes on a plantation is an important item of interest on our capital. We have for years found most females that were barren or unfruitful on a plantation, rendered so by injudicious management at some period of their life—violating the laws of Physiology.

## LOCALITY.

It is a well ascertained fact that particular locations have their peculiar diseases. As for instance, miasmatic districts, with red clay soil (such as suit the cotton plant well) will be visited annually with chills and fever, bilious remittent and continued, and when such places are adjacent to or surrounded by stagnant pools, the bilious attacks will put on a more malignant type—such as congestive or typhoid—followed afterwards with liver derangement, enlargement of the spleen and infarctions of some of the abdominal viscera. So, likewise, stiff clay soil, river bottom land, with prolific growth of cypress dogwood and moss will be visited with similar diseases as the above with the addition of pneumonia, pleurisy and rheumatic disorders during winter months, from the circumstance, that they have an abundant source of malarial exhalations to produce such diseases as malarial districts generate. They are low, damp and partially covered with pools of water during winter months, and consequently have combined to the above prolific cause of disease a damp soil and cold atmosphere; thereby keeping in check for days and weeks together one of the most important functions of the animal economy, viz: *Perspiration*, both sensible and insensible. Now, the importance of this one vital function when viewed in reference to hygiene, may be inferred when we state that Physiologists have decided that two-fifths of the ingesta taken into the stomach passes off by insensible perspiration through the skin. When this is over-abundant and collects on the surface it is termed sweat.

From the above established fact, all Pathologists agree that it is a matter of very great importance to preserve the natural relaxation of the skin, "to keep the pores open." The skin being a large organ, receives its supply of blood from the heart and large blood vessels. But suppose some accidental accumulation or circumstance occurs that constricts the vessels distributed upon it, then as a matter of course this fluid (the blood) must be forced into vessels less constricted, and these in such cases are usually the internal viscera; hence *Congestion*, that justly dreaded condition which is often found. Here must be seen at a glance the great importance of appropriate dress. Flannel next the skin, woolen clothes, thick-soled shoes, and socks, and warm bedding, to prevent such condition, as such a locality is so much calculated to produce. High, dry and level countries of a sandy loam soil, growth consisting of (*Pinus Palustris*, *Quercus*, the common pine and black jack, such as may be found about midway between the sea-board and mountain, have also their occasional



visitation of disease. Fevers, though milder, dysentery, diarrhoea, bowel affections, and during spring and summer months, the exanthemata or eruptive class of diseases, as measles, scarlet fever, &c.

Even the mountain plains themselves are not exempt from the maladies that affect our race; bronchial and catarrhal affections often torment and harass us in these localities.

Now we arrive at the rationale why the nature of the location should be understood. This fully known, will throw some light on the nature of the diseases that prevail in such situations and to which the inhabitants are most subject, and, hence possessing such a knowledge will enable them more effectually to guard against their attack. For instance, if the place be such as are subject to bilious autumnal fevers, such as are produced by malarial exhalations, then we should guard the system particularly against such attacks. We should avoid, during sickly seasons, exposure to *night atmosphere, getting wet, and sleeping in wet clothes*. We should, moreover, in such places purify our sleeping apartments by the thorough applications of lime in whitewashing, both inside and outside of the house. If fevers are raging, burn tar freely around the apartment and use chloride of lime as a disinfecting agent. Remove all sources of filth and stagnant pools of water near the house by raking and sweeping up the filth and by ditching or filling up low places, and even the wells, from whence we obtain our drinking water, should be cleansed effectually every week, and cleanliness of person and free ventilation of our apartments and our bed clothing should be strictly attended to, and most especially should the diet be noticed. The laborers should not leave for their work of a morning until food and drink be taken into the stomach to strengthen the powers of nature; and in sickly situations: and during a sickly season, I have found benefit by supplying them with a draught of hot coffee. It seems, with many constitutions, to act almost like a tonic. It does at least give a relish or zest to other food and imparts an impetus or vigor to the cutaneous capillary system of vessels, and hence is calculated to produce and keep up an equilibrium in that system of vessels which we deem so important. Some we have known to use alcoholic liquors where we recommend hot coffee; but if we use alcohol at any time, it is with one who has suffered with a febrile attack and whose system though debilitated, is convalescent, and requires both tonic and anti-miasmatic prescription. We then have a strong decoction of dog-wood and cherry tree bark, made and bottled up; we add to this one-fourth of whiskey, which prevents fermentation, and of this prescription one wine-glass may be taken three or four times per day.

The clothing should be such as are calculated to resist the effect of the heavy dews that occur at this season. Shoes and hats, articles much neglected by negroes, should be worn.

#### REGULARITY OF DIET

must, by all means, be enforced, for perishing one day and gormandizing the next is calculated to disorder the biliary secretion and consequently the functions of both the skin and stomach, producing thereby cholera morbus, jaundice, and various other maladies incident to the place and season. Here I would not only enforce regular hours for meals, but correct cooking. Food given out to negroes is so often mingled up by them and so often eat half cooked and partially done, that I think such matters deserve a passing notice; and to remedy such, we suggest wherever there is ten hands to feed, let one be allowed one or two hours at noon to prepare and cook the food for all, as there are generally negro children to be taken care of, the cook can attend to them and see the nurses do their duty; and moreover the addition of different vegetables grown on a plantation will add to health and make their

allowance hold out better. The overseer should frequently examine the cooking and see that it is properly done. When negroes cook themselves it encroaches upon the rest they ought to have both at noon and night; under such circumstances the cooking being done in a hurry is usually burnt outside while it is raw within, and consequently very unhealthy.

Many years of observation and practice of the medical profession has convinced me that such a course of dietetic is pursued by negroes to a greater extent than planters are aware of, and that it is a more prolific cause of disease, such as colic, bowel affections, &c., than even physicians lay down in their medical works, on the cause of disease, and that is why we do most strenuously target to this point.

Such plans adopted, we think salutary in a two-fold point of view, viz:

1st. By disseminating or thinning the miasmatic exhalations that originate, or by preventing the concentration of their poisonous nature; and,

2nd. By aiding that principle of human economy. The "vis medicatrix nature" to resist the attack of noxious agents.

The same argument will, in like manner, apply to other situations. Thus, when bronchial or pulmonary affections prevail, such as catarrh, pneumonia, &c., a more strict attention to the functions of the skin; such measures as invigorates the nervous energy of the cutaneous capillaries.

Flannel next to the skin is a *sine qua non*—a perfect indispensable. Indeed, the clothing of the human family we deem equally as important as diet and exercise. I ought in such instances, be non-conductors of caloric, such as will retain the heat of the body longest undisturbed; then we suggest the general dress to be one half entirely wool. Even socks should not be neglected. Woolen clothes for negroes have more than one inducement to recommend them. It not only retains the heat of the body longest and causes us less liable to be affected by the various changes and vicissitudes of the weather, but at the same time is less combustible than cotton clothes.

When we learn the nature and habits of the negro, that they are careless and slothful, with a peculiar nature that amounts almost to an instinctive love of the fire. Yea! to keep by the fire with their wearing apparel on their bodies. We perceive, then, the two fold necessity of urging such regimen. This idea of woolen directs itself to our mind so important because it has fallen to our lot to visit and attend professionally some fatal cases of burning, by their clothes catching fire, and literally burning up before they could be relieved of them, owing in every instance to their own carelessness. Wool next to the skin may be conducive to health by still another mode of explanation, viz: by generating and preserving a regular play of electric phenomena that recent Physiological writers contend must exist in the animal economy, for the preservation of perfect health. When we view the modification and changes experienced by joints and rheumatic sufferers in exact parallel line with the changes that occur in the electric condition of the atmosphere, such a theory is at least plausible.

In addition to the above, use a deep water-proof garment made of common osenaburghs and coated with well bodied insect oil and afterward well dried. Let this be made loose and used in the fall months, when the dew is severe or when they are necessarily exposed to rain. And just here let us notice that during sleeping hours all the powers of the constitution are in a relaxed state. It is at that time the system is more susceptible to external influences and more likely to be attacked with various diseases; hence exists the necessity of correct bed clothing such as are calculated to preserve the same temperature that has existed through the day. Good heavy woolen blankets to



each hand, home-made quilts among the women and children, with cotton, hay or shuck mattresses.

The location should not only be considered geographically but geologically, for we do find certain conditions of soil to have a powerful effect on the system. To attempt to point out the peculiar diseases incident to certain geological strata would be a task difficult to accomplish, and indeed would be wandering in the wide field of speculation and hypothesis. But when we behold certain sections of country where lime and limestone water prevails and there see almost circumscribed as by a line certain calculous affection of the kidneys and stony concretions in the urinary bladder prevail; and when we turn our eyes to the mountainous districts of the Alps, and there find bronchocle and goitre almost epidemic, then we think we see enough to warrant us in dropping a line of caution on this matter. Thus do we see the importance of knowing the diseases incident to certain localities before we move and settle with our families there, and when known enabled us, to some extent, in throwing around us partial protection.

#### FOOD.

Man is an omnivorous animal, consequently a strict adherence to one kind of diet is in opposition to his nature; and to obey Nature's laws is one of the first principles of hygiene. These first known, readily dictate the general outline to be followed—meat, bread, vegetables, molasses and, occasionally, coffee with milk. Our practice on our own plantation for years has been never to allowance our negroes with meal or vegetables, that is to be furnished to all in quantities as much as they can reasonable consume. Bacon may be given about twelve pound per month, with half gallon of molasses, and milk whenever the stock produce it. A most important part worthy of notice, is the attention necessary to be given to young negroes from one to ten years of age. They require an old, trusty woman to pay attention to their food and clothing—their food should be well cooked and they fed to satisfaction, and no diet suits them better than milk and bread, with meat and vegetables once per day.

We would urge the necessity of nutritious and healthy diet, especially in sickly seasons, from having observed, in 1850, typhoid fever originate and prevail with violence on a neighboring plantation among the blacks, we thought at the time, mostly for want of correct food; and our opinion was verified by the fact that after we substituted a nourishing diet—meat, fresh beef, and coffee—and the disease was checked from spreading. When we recommend bacon, let it not be understood that salt provisions alone should be adhered to; for fear of injuring the digestion or producing scorbutic affections, an occasional mingling of fresh beef, or mutton or kid, as we raise each on a farm, might be allowed. During convalescence from acute diseases, quantity and quality should be observed with a critic's eye.

(Concluded in our next.)

**PECULIARITIES OF GLASS.**—It is a curious fact that in science that glass resists the action of all acids except the fluoric; it losses nothing in weight by use or age; it is more capable than all other substances of receiving the highest degree of polish; if melted several times over and properly cooled in the furnace, it is capable of receiving a polish which almost rivals the diamond in brilliancy. It is susceptible of receiving the richest colors produced from gold or other metallic coloring, and will retain the original brilliancy of hue for ages. Medals, too, imbedded in glass, can be made to retain forever their original purity and appearance.

#### SUGAR FROM THE SORGHO.

*Specimens exhibited at the Farmer's Club in New York. Sorgho Alcohol. Arrival of Mr. Leonard Wray, of Natal, South Africa.*

D. REDMOND,

*Editor of the Southern Cultivator*—Your paper has come so prominently before the American public, because of the labors of one of its editors in cultivating the Sorgho Sacre, that I am tempted to forward you an early account of the gratifying proof presented to the members of our Club of the importance of our new Sugar plant. The question is no longer resting under doubt, as to the possibility of producing crystalized sugar from the Sorgho. Its friends will no longer be met with obloquy, and oft-repeated sneers and charges of intemperate enthusiasm; for the assumptions of Col. Peters, Dr. Battey, Mr. Redmond, Gov. Hammond, and those of us at the North who have attempted its culture, are fully supported by proofs given in the experience and fortunate results of Mr. Wray.

In the pamphlet of Mr. Vilmorin, which I translated for the *Working Farmer*, something more than a year since, is made mention of the fact that one Mr. Leonard Wray, a planter, of Natal, in Kaffirland, had described to the author fifteen varieties of *Imphee*, which were esteemed for their saccharine richness by the natives, and from which he had made sugar. This gentleman is likewise referred to in the report to the French Minister of War (if I remember aright), and in the *Journal d'Ag. Pratique*, and other leading journals. He has now been more than five years engaged in efforts to introduce the *Imphee*, and he tells me he has expended over £4,000 sterling in experiments, etc. On invitation of a Governor of one of our States, he visits this country to introduce the plants, and dispose of his patented process of manufacturing crystalized sugar; and in view of our waning production of sugar on even the more favored of Southern plantations, the arrival of Mr. Wray can only be considered as of great consequence to our national revenue.

Almost simultaneously with the publication in Europe of Mr. Wray's African experience, came returns from China, and specimens of seed of another variety of the *Imphee* family, sent by the Count de Montigny, the French Consul at Shanghai, which plant has run through all the phases of experiment in France, even to triumphant success, and has been introduced to American agriculture under the name of "Chinese Sugar Cane." Its adaptiveness to our peculiarities of climate and soil has been proved in no less than thirteen of our States and Territories, as I know by actual correspondence, and the fact that syrup can be made wherever Indian corn will mature its grains, is abundantly settled. But, except in a very small way and in few instances, specimens of crystalized sugar have not been obtained, and hence the idea has lately been advanced by a chemist at Boston that nothing but glucose or grape sugar could be had. It is not surprising that he should arrive at such conclusion, for it was previously entertained by the Committee of the Imperial Acclimation Society appointed to examine into the subject, and I do not doubt but that if this mysterious chemist, whose name I have been unable to learn, were to push his experiment sufficiently far he would attain similar results as the French chemist whose labors, as Dr. Ferrel expresses it "resulted in obtaining magnificent cubic crystals of sugar." Our friend, Col. Peters, in a recent letter desires me to enquire into the above report of the Boston chemist: but just as I am about complying with his request, I have been fortunate enough to see, taste and handle substantial proofs of its unreliability.

Mr. Wray laid before the Club several samples of sugar which he had obtained by boiling in a common iron pot. The crystals are clear and perfect. One sample resembles dried maple sugar, and is not dissimilar to it in taste. It is not purged of the molasses, because Mr. Wray desired to prove that the syrups of the *Imphee*, or Sorgho, are not of unpleasant flavor. Another sample resembles good *clayed Havana*, and is fully equal to what I am now using at 12 cents per pound, wholesale.

Of his sixteen varieties, four will ripen in 90 days, and are, therefore, suited to our own latitude, and that of Canada, whilst others, amongst which is the gigantic *Vim-bis-chu-a-pa*, require four and five months. The Northern varieties are called, in the Kaffir tongue:

Nee-a-za-na,	Boom-ve-va-na,
Oom-se-a-na,	Shla-goo-va.

The Southern varieties are:

Shla-goon-dee,	Zim-moo-ma-na,
Vim-bis-chu-a-pa,	Zim-ba-za-na,
E-a-na-moo-dee,	E-both-la,
E-thlo-sa,	Boo-es-a-na,
En-za-na,	Koom-ba-na,
See-en-gla-na,	E-en-gla.

The juice resulting from them is more limpid than those from the Sorgho, more free from mucilage or mere extractive matter, and more prone to crystallize; but yet Mr. Wray says there is not the slightest difficulty in securing the granulation of Sorgho juice by following his process. He claims that he can make as much sugar from the *Imphee* as from the Louisiana Cane, and equally good.

He likewise exhibited a bottle of alcohol from Sorgho juice, as pure, I think, as any I ever saw. It was so strong that on shaking it in the bottle a *head* could not be raised on the surface. This alcohol was manufactured at Hyeres, France, by Mr. Wray's partner, the celebrated Count de Beauregard. Turrel, in his Report to Marshall Vailant, says that the Count sold Sorgho alcohols on the Marseilles Exchange, at the ordinary price of other alcohols, and until he made it known, without awakening a suspicion as to their origin.

Mr. Wray is of opinion that the Chinese Sorgho will make more alcohol than his African *Imphee*, but the latter will possess an advantage in the production of sugar.

He remains in New York but a day or two and will then turn his face towards your own State and South Carolina, where you will become fully acquainted with him.

I have recently visited a number of our Northern States and have everywhere found the merits of the Sorgho actively canvassed. Two firms in Boston have each imported over a ton of seed. Thorburn, in New York, has done likewise, and it is a matter of some difficulty to find a Seed Store or Agricultural Warehouse unsupplied. I do not think it would be an exaggeration to say that fifty thousand acres of it will be planted this season, and its capacities for sugar, alcohol, stock feeding, etc., will be fully tested. Our ingenious mechanics are astir. I have recently seen three mills, by as many different manufacturers. At the meeting of our Club yesterday, Mr. Hodges of Philadelphia, exhibited a cut of a mill recently invented by him for crushing Sorgho. It consists of three iron rollers, placed vertically, one of which is fast to a beam anchored in the ground, the other two are attached to a platform and with it revolve about the third rollers. He has just exhibited at the Washington Fair, and obtained a medal. Something should be invented in season for the fall crop better than the wooden roller mill used heretofore, and less expensive than the large apparatus of the plantation.

A suitable premium for one will be offered at the United States Agricultural Society's Fair, and from present indications, I should judge we will have several competitors.

With an apology for the length of my communication, caused by much personal interest and the confidence of sympathy on your part, and in the hope of a realization of all the flattering promise now given by the Sorgho, I am, dear sir, very respectfully yours,

H. S. OLcott.

Westchester Farm School, Mt. Vernon, N. Y., 1857.

#### MAPES' AND GIBBS' ROTARY DIGGER.

Report of Mr. Robt. Nelson.

EDITORS SOUTHERN CULTIVATOR—I have carefully examined and worked "Mapes' and Gibbs' Rotary Digger," sent me for trial, and beg leave to say, that in all essential points, I coincide with the Report of the "Beech Island Farmers' Club," published in your April number. In the report of the Northern Committee it is pointed out as an advantage, "that the lower portion of the soil is disturbed, without being elevated or mixed with the surface." This I must consider a decided *disadvantage*. As far as I understand the principles of working the soil, I consider it a very essential point for the improvement of the land to have the surface turned over, so as to cover up all vegetable matter growing on it, and also to have some of the subsoil turned up and mixed with the surface. This according to my experience, is the true principle in improving land. "Mapes' and Gibbs' Rotary Digger" does not accomplish either desideratum. It acts precisely like a mole, leaving all weeds and trash on the surface, and the soil is thus unfit for any seed to be put into it, as the weeds unquestionably will overtake the crop. Besides, the implement is very heavy and complicated and I cannot consider it but a clumsy curiosity, unfit for any practical purpose.

ROBERT NELSON.

Augusta, Ga., April, 1857.

#### FLOATING MILLS.

EDITORS SOUTHERN CULTIVATOR—A travelling man has always something to tell, and having been much of a traveller during the earlier part of my life, I am now travelling my life over again at the fireside. Some topics often occur to my mind, and if you think that the following lines might be acceptable or useful to your readers, you may perhaps, sometime or other give them a place in your valuable periodical.

Travelling once through Hungary, I came to Pest, the capital of that fertile country. It is situated on the low and sandy shores of the Danube, river which is there about half a mile wide, with a very sluggish current. There being no suitable localities for procuring a fall of water for mills, the inhabitants have resorted to "Floating Mills."

It looks, indeed, very strange to the traveller to see more than thirty of such mills, floating on the water, and as the arrangement is so exceedingly simple, and may be of some use to persons who are living near a river, I will describe them in a few words. The mill consists of two flats laying at anchor out in the stream, about 10 feet from each other. On one of the flats (the larger of the two), the whole, and exceedingly economically put, grinding concern, is to be found; between both flats, the large wheel is working, and the second flat (a smaller one) serve merely for a support for the other end of the axle of the wheel. The wheel itself is about 10 feet wide, each of the paddles consisting of a board 10 feet long, which is the width of the wheel. There it lays, working by the tide or flow of the stream slowly, but constantly, day and night. The stand of the water has nothing to do with it, for, laying at anchor, it will rise and fall with the tide. By a simple bridge or cause it has communication with the shore, and is perfectly moveable.

This is certainly a very easy and cheap use of water.

power, and might be employed advantageously for many different purposes on our large rivers.

We are not yet so far advanced in agricultural improvement, as to do much at irrigation. But when we reach that point (and we must come to it) such a simple mechanism would be exceedingly useful, in suitable localities, for lifting any quantity of water for agricultural purposes. In such a way the lands of Babylon and Nineveh (now a desert) were cultivated like gardens six thousand years ago; Egypt is, to a great extent, kept fertile at this very day, by means of its "Sakias" or water mills; and it is well known to everybody that "water is the life and soul of all farming and gardening."

ROBERT NELSON.

"*Planter*," Augusta, Ga., 1857.

#### TO LONG COTTON PLANTERS IN FLORIDA.

THE writer being one of your fraternity, besides being largely interested in the sale, production and preparation of Sea Island Cotton in your State, takes the liberty of offering you a few suggestions for the better preparation of this staple, knowing that very many of you who have begun its cultivation. It is to the advantage of planters to gather their cotton as clean as possible from the field, that picked in clean being sounder and altogether more perfect and valuable, than where stained, rotten cotton and trash are all gathered in together as cotton. After the cotton has been housed it ought to be spread out on the floor for a couple of days to dry, but do not expose it to the sun at any time unless it was picked during a wet spell.

In damp, wet weather it is best to have your negroes in the cotton house overhauling cotton, picking out all defective and stained cotton, trash, &c., than to have them exposed to the weather, storms of wind and lightning, being more dangerous in an open field than in houses.

Gin your cotton as soon after harvesting it as possible. Cotton gains no good by being kept in bulk, but on the contrary it deteriorates in value, losing a great deal of its soft, silky feeling and natural vegetable oil, which qualities are very much desired by consumers.

Judging by the sales of cotton in Charleston and Savannah, I would say that the McCarthy Gin answers the best for your purposes. I consider that similar cottons, one parcel got out on the old two roller gins and the other on the McCarthy Gins, that ninety nine times out of a hundred that there is a difference of from 3 to 10 cents per pound in favor of the cotton ginned on the McCarthy Gin. This gin to be worked slowly and not to turn out more than from 20 to 25 pounds of lint per hour, as by running it faster, you make the cotton rather too dry and fleecy.

Packing, first get the best Sea Island bagging, for there is no economy whatever in putting up your produce in bad, unsightly packages, cut off 42 yards, which will be large enough to contain from 300 to 350 pounds, which is the usual weight of bags of Sea Island Cotton; after having the bag made with strong twine, put the cotton in it in parcels of not less than 20 pounds; this to be forced down by the packer, with a heavy mallet, warning him not to spit tobacco juice or allow any water whatever to come near the outside or inside of the bag, using water to pack cotton, to my knowledge, has cost the planters of Florida thousands of dollars. When you have finished the bag, mark it carefully with your name in full or your initials, numbering each bag as you pack it off; if you should have reason to think that a portion of your crop is better than the other, it is to your advantage to put a distinguishing brand on the inferior parcel. It is well to have one's brand known and desirable, as in a dull time, those parties whose cotton has been used up and given

satisfaction, stand a better chance of disposing of their crops the next year.

Hoping that these few suggestions may be the means of bringing increased prosperity to you, my friends, and that as an agent and friend of Long Cotton planters in Florida, I may never see a bag of "water packed" cotton, I remain with sentiments of esteem,

Your friend,

"MERCHANT FARMER."

Charleston, S. C., March, 1857.

#### VARIETIES OF CHINESE SUGAR CANE.

EDITORS SOUTHERN CULTIVATOR.—I enclose a few seeds for your inspection. Their history is this:—while sojourning in Ohio in 1855, I stepped into a seed store where there was no person in at the moment but a very small boy. I discovered the seeds in a show case, and asked him what they were. He believed they called "coffee corn," but could tell but little about it, only that it was sent from the Patent Office for distribution. Upon my requesting it, he gave me nearly a tablespoonful of them. I hoped to cultivate it to advantage and save my coffee expenses. Being unsettled, I did not plant it until 1856, and then, not until the 10th of June. It produced a majestic stalk, varying from 12 to 16 feet in height, yielding nearly 5 quarts of seed, such as I enclose. During its growth the children cut down and chewed up several of the stalks for its sweetness. My wife fell into the same habit; but considering it my pet, kept the knowledge of it from me until recently.

The facts above stated, in connection with your article in the *Cultivator*, in which you mention that there are a number of varieties of the Chinese Sugar Cane, suggested to me that the little boy made a slight mistake. That it was intended to produce Sugar instead of coffee.

Will you be so kind as to give me your opinion as to whether it is a variety of the Chinese Sugar Cane or not?

Should my seed prove genuine, I wish to make the most of them; if not, I can but roast them and try the coffee experiment.

Your early compliance will (as the planting season is now on us) very much oblige,

Yours respectfully,

JESE J. SMITH.

Caloosa County, Ga., 1857.

[The seeds resemble those of the Chinese Sugar Cane, but there are so many varieties of Sorghum, that we are not fully able to decide whether they are genuine or not. We sent our correspondent some of our own pure seed for comparison.—EDS.]

CHEAP WOOD UNDERDRAINS.—We have been trying underdraining some in Crawford county, on a cheaper plan than I have seen recommended. I put in some two hundred rods, last spring, at an expense of from 10 to 15 cents per rod. We do not know how long it will last—the oldest I know of is some eight years. I think in a majority of cases it will pay the expense of making in two years.

We dig a ditch 2½ or 3 feet deep; at 2 feet deep, 3 inches wide, then 1 foot deeper 6 inches wide at top, and 3 or 4 inches at the bottom; then place in a piece of timber so large that it will lay 4, 5, 6 or 10 inches from the bottom, according to the quantity of water required to pass. The timber should be well driven down before filling up. Where splitting timber is scarce, boards one or one and a half inches thick and from 5 to 7 inches broad, according to the quantity of water, can be used, which will increase the cost a little.

W. C.

[in *Ohio Cultivator*.]

## UNITED STATES AGRICULTURAL SOCIETY.

A New York agriculturist, writing from Louisville, Ky., under date of March 19, says:

The Executive Committee of the Society are now in session, making all the preliminary arrangements for its fifth grand exhibition in the Fall. The Hon. Marshall P. Wilder, President of the Society, Mr. H. S. Olcott, Secretary of the Implement Committee, and others, arrived here yesterday, via Cincinnati. L. A. Whiteley, Esq., associate editor of the *Louisville Journal*, was elected Assistant Secretary, and Arthur Peter, Esq., Assistant Treasurers. The Hon. Gibson Mallory was chosen Chairman of the local Executive Committee; the other members are the Hon. James Guthrie, ex-Secretary of the Treasury, T. H. Hunt, J. B. O'Bannon, B. J. Adams, W. Watkins and Isaac Everett.

After a full deliberation, and reference to the appointments of the various State Societies, it was decided to hold the exhibition on the 1st, 2d, 3d, 4th and 5th of September. This, on reflection, will be seen to be a judicious choice. They escape all danger of the equinoctial storm; the stock is not fagged out by exhibition at other shows; the public curiosity has not been sated; the weather is not fickle; exhibitors can take prize stock and agricultural implements to other fairs; and moreover, this being the great National Show of the country, it very appropriately leads the way in advance of the others. By this arrangement a visitor from New York can come here, see the magnificent stock and horses of Kentucky, Indiana, Ohio and Illinois, and the "Grand Field Trial of Implements," stop at Cincinnati to attend the Fair of the Ohio Board of Agriculture, and arrive home in ample time for that of the New York State Society on the 30th September to the 2nd October.

Judging from the spirit manifested by the gentlemen co-operating with the Society, I have not the slightest doubt that this fifth exhibition will be equal to, if not surpass its predecessors. With ample arrangements for the accommodation of stock, abundance of water on the grounds, a tract of forty-three acres surrounded with a good tight fence, and the very best possible railroad facilities for bringing passengers, stock, and marching to the front gate of the grounds, there can be no reason why exhibitors should not throng here with their animals, and a vast crowd attend to participate in the festivities. With but slight alteration, we may apply the celebrated Berkley prophecy to the onward march of this Society:

"Westward the star of empire takes its way,  
The first four acts already past.  
The fifth shall clothe the drama with the day,  
Time's noblest offspring is its last."

The Fair is to be held on the grounds of the South-western Agricultural and Mechanical Association, which Society came forward at the Washington meeting of the United States Society, and through Secretary Guthrie and Hon. Humphrey Marshall as delegates, guaranteed \$30,000 and the free use of their grounds and buildings. The track is mainly level, and is supplied with abundant springs and cisterns of water, and is situated so as to be accessible on all sides. The Louisville and Lexington railroad track runs immediately in front of the ground. Passengers are landed on a platform which is some 50 feet wide, running to a sufficient length for 17 cars. The grand entrance is directly connected with this platform. Stock can thus be removed from the cars and driven across the platform into the appropriate entrance. Implements and machinery are directly taken to the place, and the usual delay and expense of carting between distant points is entirely obviated.

One of the most novel features of this exhibition will be showing the stock of horses to the several juries in a mag-

nificent amphitheater, around which are erected tiers of seats to accommodate 8,000 persons. There is a tower in the centre of this in which the judges are placed. When the hour appointed for the exhibition of a certain class of stock arrives, it is announced by the ringing of a large bell. The animals of the class are led into the arena through large gates, and their several points are examined and decided upon by the judges. The victorious animal is at once adorned with ribbons of various colors, and thus the entire audience are made acquainted with the results of the examination of the jury. The gentlemen of the Society here say that the utmost interest is awakened by this mode of procedure, and the practice has been highly successful.

The gallantry of the south-western gentlemen is shown by their having a commodious brick house, comfortably furnished, and separated from the crush and crowd on the grounds by a fence, for the sole use of ladies. Thus there will be no difficulty whatever in the way of members at the East bringing their wives, daughters and sisters to attend the meeting, for they will be supplied with a nice, comfortable place of retreat and rest. The Galt House is immense in size, and complete in appointments. I think it equal to our Astor House in every respect.

A letter was read from Mr. J. Thompson, Warden of the Implement Committee, resigning his connection with it because of press of other business. Jos. A. Moore, Esq., of Louisville was appointed in his place, and Mr. A. G. Munn was added to the Committee.

Mr. Olcott is making the necessary preliminary examinations for the Implement Trial, and seems confident of its being perhaps one of the most attractive and useful features of the show. It certainly is of first importance to our farmers, and has the good wishes of the entire country for its success. This being the first field trial of implements by the Society, it cannot be expected to attain that perfection in detail and general consequence that another season and more practice will necessarily bring with it; but the great, bold stand for reform has been taken, and this fall's trial must be of great use.

The premium list figures up pretty large—amounting to some \$16,000—but it will probably be much curtailed after a second examination.

## THE LONDON TIMES ON COTTON.

The *London Times* (says an exchange paper,) is opening its eyes. It sees how closely the interests of England are interwoven with those of the Southern States, and gives us the result of its observation, as follows:

In sober truth, the American slave owner is one of the few consistent personages left on the earth, and should have a foremost niche in the next "Essay on decision of character." There is no subterfuge, no 'sentimental humbuggery,' as it is called by the New Orleans *Delta*, about him. He does what he likes with his own; he avows his principles, acts up to them, and now openly prophecies a Millennium in which the cotton plant shall be the tree of life, and the ministering angels shall be of the family of Ham. On the contrary the abolitionists and free-soilers, the Northern States and England, are all playing the hypocrite. We all live by the cotton tree. It is the British heart of oak. Many a baronial hall, many a church, many a guild, cities, navies, and other works have been made from cotton wool and from the African who watered it and plucked it from the flossy pod, and cleaned it and packed it into bales. Millions of our countrymen would never have seen the light but for this exotic production and for its cultivators. A failure of the crop is to a large part of our people a virtual famine. Should the cultivation of the plant find its limits, that is, should it not increase in equal proportion to the multiplication of the human race and its

growing wants, we shall find ourselves more hide-bound in our means of life than we are by the narrowness of these isles. We know that the thread of our national dynasty is cotton. We know that for all mercantile purposes England is one of the States; and that, in effect, we are partners with the Southern planter. Yet, as a nation, we are abolitionists, *fetc* Mrs. Stowe, cry over her books, and pray for an anti-slavery President. We thank God that no slave can exist on British soil, and only the other day some of our soberest statesmen were denouncing and prohibiting slave-grown sugar. But all this time we are clothing not only ourselves, but all the world besides, with the very cotton picked by Uncle Tom and his fellow sufferers. It is our trade. We are Mr. Legree's agents for the manufacture and sale of his cotton crop. Should anything happen to Mr. Legree, and should he be so unfortunate as not to keep up his black stock, we shall all be ruined, and shall have to take our place in the second rank of nations."

#### LEVELING, OR HILL-SIDE TRENCHING.

EDITORS SOUTHERN CULTIVATOR—Much has been said through the *Cultivator*, and as there remains something (to my mind at least) important yet unsaid, allow me, through your columns, to pick up what may be termed a few dropped stitches. In doing so, however, it will be best understood by your readers by giving the whole plan or system; then each, with his own plan before him, will be enabled to see wherein they may differ from the one intended to be presented in this.

Allow me to remark further, that I have tried several plans, none of which are without objection; but, perhaps, fewer in this than any other.

First, then, on arriving at the ground, select the highest point of a natural drain, if any; place your level, (rafter plan preferred, both ends of the same length, having a plumb-bob in the centre); follow the level to the right or left, until you reach the end of the field intended to be leveled, followed by a boy with a grubbing-hoe, who will give a deep chop as near the hind end as may be, without disturbing the earth under the foot thereof; return whence you started; place one foot in the place or point made by the level at starting and then go the opposite way. Remember we started first on the lowest part of the upper end of the natural drain. We now go the other way from the drain or starting point, by the same rule and plan as the first half—this ended you have located the first trench, and that, too, upon a perfect level. Next go lower down the same natural drain, and repeat the operation as before; then again, until, in your judgment, you have located a sufficient number to serve the purpose of leveling and draining (by draining is only meant to do so by dividing the rain water that falls and the seep water from wet places, thereby preventing the water from collecting in bodies, and at the same time distributing it as equally among the rows as possible. Running streams, of course, belong to another class of work, and should be done before this is commenced, which, however, when done, adds to and benefits this. Indeed, streams that overflow must be controlled before the plan of hill-side trenching can be connected with it; if done, however, the hill sides and bottoms can all be placed together under the same plan and rules as above.

This places me at a stand point, from which I can now bring up the subject of running or laying off rows, which is the dropped stitch among your correspondents. The trench having now been cleared out, which appears to be understood by them, we will commence with the plow at one end of the trench and on the lower side of the same, running parallel the whole length thereof, the distance being the width the row is wanted. Turn—go back and forth, running rows until you reach the half-way ground

between this and the trench below it. Change—let the plowman fall on the upperside of the next trench below; run off by the same plan as above, until the rows meet in the centre, on any part of the ground; he will then and there change his plan by starting from the narrow point whence the rows met—following the rows on his right from the narrow point to the fence, return to the narrow point, running a row as he does so; then turn to the set of rows on his left; go and return as before—continue first on the right and then on the left, in the same way until the ground is finished. The object in all this is to preserve the centre and keep half way between the trenches—retaining for the short rows the very same level the long ones have.

If the rows as described above meet in more places than one, in filling out, the same rule must be observed in going and coming, first on one side and then on the other.

Allow me to remark that the leveling system commenced under the advice given in a book, by Tayloe. When I was a boy, I assisted my father in leveling a piece of ground, but as the water would, in places, collect in bodies and break over, doing much damage, he abandoned it entirely. The next plan introduced was the one now in general use, viz: Hill-Side ditching with a fall, running the rows parallel with them. This I tried some 12 or 15 years ago, but soon abandoned it because every row at one and a half inch fall for every twelve feet, soon produced a "sharp" little gulley in its middle.

I have now gone back to the level system, taking from the hill-side plan the only good thing about it—its trenches, or, more properly, guard drains. So, with level guard drains and level rows, none need fear. Each row, if it has a perfect bed, will hold all the water that falls in it; if imperfect and one or more should break and bring the water of several together, it can go but a short distance before the water will be caught by the guard drain or trench.

If the above will aid you or our brother farmers and planters, they are yours. JONAS M. GUNN.

Dallas Co, Ala., 1857.

#### SHANGHAIS--SWELLED FEET--SEEDS, &c.

EDITORS SOUTHERN CULTIVATOR—I have lost, recently, several of my very largest Shanghai Cocks. They at first show a slight lameness, then their toes begin to swell and as the disease advances the toe perishes away so there is nothing but the cone left. The disease seems entirely confined to the foot, and one foot at that. I have examined them after death, and find the foot one mass of corruption. I split the foot of one when first taken, and found it full of matter; I put Iodine on several times, and it was a benefit, but did not cure. The hens are not attacked with the disease.

Now, Messrs. Editors, can you or any of your wise readers give me the cause and a cure; if not the cause, the cure will be very thankfully received.

Can you inform me where, and from whom I can procure seed of the Frijoles, or Turtle Soup Beans? Also, the Hoo Sung seed? MRS. M. K. J.

Tascumbia, Ala., 1857.

REMARKS.—We have never seen but few fowls attacked as our correspondent describes, and have no knowledge of the proper remedy. The authorities are generally silent upon the subject, and the only remedy we have ever heard was a thin slice of salty bacon bound upon the sole or bottom of the foot with a cloth bandage. Do any of our readers know of a cure? Who can furnish the desired seed?—EDS.



## SOUTHERN RURAL LITERATURE---PAST AND Present.

DR. DANIEL LEE—*Dear Sir:*—I have been taking the *Southern Cultivator* ever since it was first published, and have never wrote an article for it, but have been solicited frequently. I am no writer for the press, being a reserved, domestic, unostentatious sort of a man, with more practice than theory; but I regret the change it has undergone since you have been Editor. Your first editorial articles suited me finely, and I think ought to suit the whole South, if they would study their interest closely. When you was first Editor, you lectured your readers on domestic economy strictly: particularly, on cows, milk, cheese, butter, beef, sheep, wool and everything that appertains to good living and living as independent of other people and nations as possible. Then you was on the *right track*; and I often said you was the greatest benefactor of the age in Georgia. But now, I see you have diverged, or run into the popular breeze, or cotton mania, which all old farmers know has ruined Middle Georgia. Messrs. Editors, I will tell you what makes times so hard: the spirit of speculation is too strong; white folks have got too lazy to work here in Middle and Southern Georgia, and they do not want to raise but two or three articles on their farms, with which to buy the rest—they don't want to be at the trouble to manufacture anything. We are too lazy a set of people and have five times too many professional vultures and loafers and loungers among us. Writers call this the Empire State of the South! Why, this is one of the most dependent of the States, considering its locality. We raise but one article to buy salt, iron, sugar, coffee, rice, molasses and 100 other things!! The sugar, syrup, and rice *we can raise*; the salt might be made on our own sea coast, and in consequence, the supplies would be better and the present enormous prices would come down. Do you call this living independent of other nations? I call it a state of vassalage. The Empire State of the South, indeed!!! it is all a humbug. Georgia *ought to be*, from her locality, the Empire State of the South; but there is too great a spirit here for Railroads. Messrs. Editors, the facilities here for carrying off the raw material to enrich foreign nations at our expense, are too great now. Why not employ all the political, loafing, dram-selling partisans in the manufacture of something to eat and wear and get rid of these pests to society at once? I repeat it, Mr. Editor, all this speculation is based on laziness, and a lazy man has got no conscience, and he will lie in a speculation, to live without labor.

I hope, dear Doctor, you will lecture us on your first impressions, when you came to Augusta, and not be such a full-blooded cotton writer, for I believe you have the interest of the South at heart, and that your motives are good; but you are subject to a little cotton contagion. The reason there is so much more money wanted now is, that it is a great deal easier for some people to buy a living than to make it, if they only can get the money. Do lecture the South on making something to eat and wear and living more independent of the North and Europe: for I think more of you than any Northern man I ever saw.

Respectfully,

L. J. S.

REMARKS.—The writer of the above has our thanks for his good opinion, and his first lecture on editorial duties, and Southern economy. It will do better for a man born and reared at the South to talk of the "laziness" of his fellow-citizens than for one coming from the icy North. Nor should the fact be overlooked that no people care to be always reminded of their errors and short-comings in a spirit of fault-finding, which soon becomes wearisome

and unbearable. The lamented JOHN S. SKINNER gave to the pages of *The Plow, Loom and Anvil* the best matured thoughts of a long and active life, devoted to the advancement of American agriculture; and yet he often complained to the writer that his journal paid him nothing for his services; while the *Genesee Farmer* (which said nothing of the *Loom and the Anvil*) had forty thousand subscribers. All needful reforms in society are effected by slow degrees, and often more by appearing to sail with the popular current than to be forever toiling against it. Nothing is easier than to say with L. J. S. "Why not employ all the political, loafing, lounging, dram-selling partisans in the manufacture of something to eat and wear, and get rid of these pests to society at once?" Such a wholesale and speedy extinction of Evil reminds us of a green legislator, who introduced a bill to "abolish all adultery in the State;" as though a legislative enactment would extinguish a grave sin forever!

Our friend ought not to have waited till the *Southern Cultivator* had reached its fifteenth volume before he wrote a single line for it, to encourage that system of farm-economy which he deems so important to the South. His silence, with that of many others, naturally led us to believe Public Opinion was strongly against raising the mules, horses, wool, hay, butter and cheese consumed in the planting States, within their limits; and if the popular sentiment be not opposed to these and all kindred industrial arts, why are they so generally avoided as something discreditable? Unquestionably popular sentiment is wrong in this matter, although only a very few care to interest themselves to right the wrong.

That there are too many professional men, and too few educated farmers and planters at the South, will hardly be denied; while not one in a thousand of those who speak warmly against what they denominate "professional vultures," will join in a common effort to build up an Agricultural College in Georgia that might be more flourishing and useful than the medical institution in Augusta. So long as the owners of the soil do nothing themselves to inaugurate a better system of tillage, of genuine husbandry, and of wise economy in all things, it can profit but little to complain of an humble editor for seeming to get off "the right track." His paper must go on the same track with its readers; and not only so, but at the same speed and in the same coaches, or the paper will soon be without readers. Such is human nature, that man willingly pays more for what HUDIBRAS calls "the pleasure of being cheated," than for any other amusement. The people buy humbugs because they love them. If they did not love them, they would not patronize them so extensively; nor receive their nostrums as a free gift. True science is no humbug, and, therefore, it is not sought after by the millions. That they reject it, is no good reason why it should not be cultivated at the South. Planters have peculiar interests which science will protect and advance, when popular political theories, like those of demagogues, would destroy them. Science goes back to the sure foundation of things. It rejects all vain imaginings, all *ad captandum* phraseology, to dwell forever with simple



*truth.* The simplicity of the Bible, like that of all truth, has often caused its pearl to be trampled under the feet of swine.

Our views of the most essential wants of Southern citizens have not changed during the ten years that we have addressed them through the columns of this journal. A self-sustaining work, in which tens of thousands should constantly instruct one another, from their reading, experience and observation, was what we hoped to see established on a permanent basis. The value of such a work consists not in the fruit of any one mind, but in the timely contributions of hundreds who know the truth and point of what they say. Judged by the intelligence and number of its correspondents, the *Southern Cultivator* has few equals and no superior in the department of knowledge to which it is devoted. Write for the paper, not forgetting that strong arguments are best expressed in soft words. L.

#### LEVELING LAND--HILL-SIDE DITCHING.

EDITORS SOUTHERN CULTIVATOR.—Never having written a piece for publication, I now feel the greater delicacy in attempting it, as it is to condemn the theory and practice of so able a writer as Col. Cannon. But when I see a theory so highly extolled, which I feel must result injuriously if adopted by the cotton planter, I can no longer remain neutral; and in combatting this I will only give the lessons of that best of teachers—experience.

In the first place, permit me to say that Madison county, Miss., has been one of the fairest portions of the "Sunny South." Where now stretches the endless cotton field, once bloomed the loveliest prairies; but man, energetic man, found it and appropriated it to husbandry. In the early settlements, we first cultivated these prairies; then gave way the timbered hills to the woodman's axe: we then gloried in straight rows. Years rolled on. Although the deterioration of our lands suggested that something must be done: some one proposed "level rows," and then commenced the system of "horizontal culture," which I so much deprecate. This plan took like magic, and but a few years elapsed before our planters all enjoyed the prospect of level rows.

Now for the result. It sometimes rains here, but not more, I suppose, than in Georgia, and never did a rain of any magnitude fall but that our hills showed that a young avalanche had swept down their sides, leaving scarcely the vestige of a row behind. The next plowing we would raise another ridge of loose earth, which in due course of time, would follow the first to that great emporium, the Mississippi. The next year, to remedy this "wash," we would change the rows a little, when the water would accumulate at some other point, and another landslide be the result; and so on for years, till naught was to be seen but the "ribbed remains" of a once fertile district.

Your correspondent from an adjoining county, Mr. Harmon, is convinced of the inadequacy of this plan, hence the adoption of Hill-side Ditches, of which he writes. I have given you the experience of a community for 13 long years. So much for "Col. Cannon's theory." I am done with it.

I am truly glad to see the interest which Mr. Harmon manifests in this matter, and hope to be of service to him. He knows the disease; has the remedy; but, I think, makes an improper application.

Nature is a model of such infinite perfection that none can improve her, and we are but to look forward to the execution of her suggestions. Look abroad upon this beautiful earth. Why these sunny hills, these broad spreading

uplands, these deep-shaded hollows, these purling streams? Are they but to vary the landscape, to please the eye? No sirs; they are of practical utility, without which we would but have a mighty frog-pond. Then, as we are cultivators of the soil, let us imitate Nature and get rid of the superabundance of water which falls—not try to retain it. Col. Cannon returns to Nature when he sows grass and leaves his land level, and, of course, succeeds that. As I proposed to be of service to Mr. Harmon, I will proceed to give the plan which has been adopted, to the rejection of all others, in this vicinity. I cannot omit to say here, that to Mr. M. V. Collum, of this county, belongs the credit of first having theorized and practiced it.

Each row should be its own conductor—emptying its water, in some natural or artificial drain. Parallel ditches are wholly unnecessary—there is no use for a ditch where you have natural drain to empty in—when you have emptied the last row leading into the upper end of this drain, then comes the need of a ditch, and this last row being raked up gives it at once. Now the water which falls on hills above this point is that most to be dreaded—this last row or ditch of course rises as you have the drain. Commence above this and fall or drain the rows into it; if this does not fill out the "cut" or hill, the last row emptying in at the highest point or end should be raked out for a second ditch and filled in as the other, and so on, till you have an outlet for the last row; thus you see the last drop of water is controlled till it is emptied in the natural drain. No water is permitted to flow to the roads, hedges or fence rows, being taken off by these ditches. The fall to be given ought to be determined from the character of the soil—sandy less than tenacious soils.

A SUBSCRIBER.

Collage Place, Miss., 1857.

#### RAISING TURKEYS IN MISSISSIPPI.

EDITORS SOUTHERN CULTIVATOR.—I propose to give you our plan for raising Turkeys. The male Turkey from which we are raising is a half cross with the Wild Turkey, and will be six years old this spring; the hens are from two to five years old and about ten or twelve in number. I have a house for them to lay and sit in, and when disposed to sit, they are left on the nest, until some five or six are disposed to sit; from twenty to twenty-five eggs are placed under each hen; as soon as the young Turkeys are hatched out they are taken to the oat-field, as affording better protection from the hawk. I never give them one mouthful to eat, never get them up, and sometime do not see them for a week or two. When so treated, I have rarely ever known one to die—some are destroyed by hawks; pole-cats, minks, &c., but I generally get four-fifths of the number put out.

For five years, I tried housing and feeding them regularly three times a day, and every year lost nine out of ten. They are the most economical fowl that can be raised; they require no feeding; but when left free will roam the fields over, destroying worms and insects of every description. Last summer they saved us about 25 acres of cotton from the worm; in the fall they will readily fatten on acorns.

My opinion is that more young fowls are killed by over-feeding than die from disease. I know it to be so with Turkeys. A SUBSCRIBER.

Mississippi, 1857.

PRICES OF NEGROES.—We attended the sale of the property belonging to the estate of Smith Bradley, deceased, on Tuesday last. Ten negroes were sold at an average of \$730. Negro women and boys brought as high as \$900. Of the number sold there was one child, two years old and one five years old.—*Greenville Enterprise*.

## REES, HIVING &c.—CHINA BERRIES KILL Hogs!

EDITORS SOUTHERN CULTIVATOR—I see, in the March number of the *Cultivator*, that my friend M. T. McGhee, of Bradley county, Ark., solicits queries respecting the treatment of his "little favorite," the honey-bee. Now, as it is a great favorite with me as well as himself, and as I have not "Bevan," I propose, by your permission to propound a few questions in reference to hiving the swarms, for I find great difficulty when they swarm to get them in the hive and keep them there, so much so that I have almost given them up in despair.

1st. Do you plane the plank that you make your hives of?

2nd. Do you perfume the hive, by rubbing or other wise?

3rd. Do you ever put bees in an old stand or hive that they have once worked in?

Give your whole proceedings in the act of hiving the swarm.

I can say to friend McGhee, that my neighbor witnessed the sudden death of three-fourths of 16 head of shoats after eating China berries freely.

Yours, &c.  
WM. H. STEVENSON,  
De Kalb, Kaper county, Miss., 1857.

**HORSES SHOULD BE EXERCISED DAILY.**—Horses require daily exercise in the open air, and can no more be expected to exist without it than their owners. Exercise is an essential feature in stable management, and like well opportuned food tends alike to preserve the health of horses.

Daily exercise is necessary for all horses, unless they are sick; it assists and promotes a free circulation of the blood, determines morbid matter to the surface, develops the muscular structure, creates an appetite, improves the wind and finally invigorates the whole system. We cannot expect much of a horse that has not been daily habituated to sufficient exercise; while such as have been daily exercised and well managed, are capable not only of great exertion and fatigue, but are ready and willing to do our bidding at any season. When an animal is overworked, it renders the system very susceptible to whatever morbid influence may be present, and imparts to the disease they may be laboring under an unusual degree of severity. The exhaustion produced by want of rest is equally dangerous, such horses are always among the first victims of disease, and when attacked their treatment is embarrassing and unsatisfactory.—*Southern Agriculturist*.

## PLOWS FOR CANE ROOTS—SUBSOILING, &c.

EDITORS SOUTHERN CULTIVATOR—In looking over the January number of the *Cultivator*, I find an enquiry made about a plow that will tear up cane roots. I have one of the most perfect implements for that purpose, that has ever been invented.

It is simple in its construction, and does its work effectually. It is worked on my Patent Plow Stock. It can be made for one or for two horses. And when you are done using the root-cutter, you can easily attach any other of the known plows, such as subsoils, scooters, shovels, sweeps, gophers, buzzards, scrapers, turning-plows of all descriptions, and shapes of mouldboard, either cast or wrought, and, indeed, any plow that can be attached to any other stock, can be to this.

My prices are as follows: for one horse stock, \$5; for two horse stock, \$8; for one horse stock, with root cutter attached, \$7; for two horse stock, with root-cutter, \$11.

All other Plows can be attached to the Stock for the same prices that they can be made for any other stock. This is now considered by those who are using it, to be one of the most perfect plow stocks in existence.

Plows, or the Right to manufacture and use them, can be had by addressing me at Ogeechee, Scriven county, Ga.

G. W. COOPER.  
Scriven Co., Ga., 1857.

**REMARKS.**—The foregoing partakes rather too much of the nature of an advertisement to appear in the reading columns of our journal; but we depart from an established rule in giving it place, because we know Mr. COOPER to be a worthy and reliable man, as well as an ingenious self-taught Georgia mechanic. We are using his Patent Plow Stocks, among others, at "Fruitland Nursery," and find his subsoil point, for 2-horse plows, to be one of the most convenient and efficient tools that we have ever tried for deepening the soil. Drawn out an inch or two longer than usual, and steeled on the point and wings, it can hardly be surpassed; and it is so simple that any planter smith can make it.—D. R.

## RURAL POETRY, &c.

EDITORS SOUTHERN CULTIVATOR—I have often been well pleased with the poetry presented us in the *Cultivator*. I regret that we cannot have music accompanying it; this, however, at the present price of the paper, we cannot expect. I have selected a piece, which, if you think appropriate, you can use.

*Rough and Ready, Ga., 1857.*

**BY-AND-BY.**

There's a little mischief-making

Elfin, who is ever nigh

Thwarting every undertaking

And his name is "By-and-Bye."

What they ought to do this minute

Will be better done, he'll cry

"If to-morrow we begin it"

Put it off," says "By-and-Bye."

Those who heed his treacherous wooing

Will his faithless guidance rue—

What we always put off doing,

Clearly, we shall never do;

We shall reach whatever we endeavor

Now, we more rely on "By-and-Bye."

But unto the realms of "Never"

Leads the Pilot "By-and-Bye."

**WILL THE BOTT QUESTION EVER BE**

Settled?

EDITORS SOUTHERN CULTIVATOR—I notice in your March number a communication from Mr. "F. V. B. Trotter," entitled "Botts in Horses," giving his views in regard to their action, a specific remedy, &c., &c. I am a great admirer of that noble animal—the horse—and everything appertaining to him is of great interest to me. For several years I have paid considerable attention, especially to that destructive complaint, termed the Botts or Grubs in Horses. From all the lights before me—received from practical observation, reading and experiments—I have arrived at the following conclusions, viz;

1st. *Botts or Grubs* are in the stomach of every horse.

2nd. They live wholly upon the principle of suction, and have no means of eating otherwise!

3rd. No horse is affected by them, who is regularly fed, watered and salted.

4th. That no horse's stomach was ever perforated by the *botts or grubs*, because, as before stated, the worm has no mouth prepared by nature for cutting through any substance, that I have been able to discover. The grub is provided with two sharp, lance-like feelers, by which he

holds to the stomach and a small mouth through which he sucks the liquid contents of the stomach! He is a *sucker* and nothing more.

Then, to my first assertion—as *worms* are in all animals and as each possesses affinity for its particular class of animals, so have the *botts* a natural home in the stomach of all animals of the horse genus. It appears to be an order of nature that no animal, commencing with the highest—man—to the lowest, but has incorporated in the system some kind of *worm*.

*Second.* If the *botts* or Grubs do not live by *suction* alone, why do they remain so long in the stomach of a horse without eating their way out, when it certainly becomes empty very often?

*Third.* All the cases of death produced by *botts* that have come under my knowledge, resulted from want of regular attention and under long fasting.

*Fourth.* Some one asks, "if the *botts*, by eating up the stomach do not kill the horse, what does?" We will tell you. The presence of the *botts* collected in the *cardiac* opening, or that part of the stomach at which the food enters in large quantities in consequence of the entire emptiness of the organ of all the food and juices they have been accustomed to feed upon, acts upon the ganglion or collection of nerves, at that point, which are wisely provided by Providence to cause the proper flow of gastric juice for digestion, and thus irritating those nerves, which ramify the whole stomach, causes an unusual flow of gastric juice into that organ, there to lie until the time comes for its action upon any substance, not containing life, (for it is a well known fact to Physiologists that the gastric juice will not act upon a living substance.) We then have the stomach empty of food, the *botts* packed in its cardiac opening, and the large supply of gastric juice lying inert in that organ. The horse cannot swallow his food. We dose him and back it comes through mouth and nose. He rolls in great agony, unless relieved by what? Any *sweet mixture* you may give. Sage tea and sugar or molasses, or milk and molasses, or Jerusalem oak tea and molasses! Why use a sweet liquid to cause the *botts* to retreat? Because, like many other animals and insects, "sweetening" will make a ruthless lot of *botts* behave themselves.

If these remedies fail and the horse dies—what kills him? The *botts*, say you reader. It is verily so, my friend. The *botts* kill him; but they don't eat through his stomach! Not a bit of it! Now comes into play that gastric juice we left lying so completely inert awhile ago. True to natural laws—its natural laws in particular—the suspended work goes on, and every part of the stomach it comes in contact with as a now dead substance is at once acted upon and digested! Hence the *honey-comb* work! Hence the old theory of so many, that the *botts* ate the maw "through and through" and thus produced death.

I shall ever believe my theory the most reasonable one when viewed in the right light; and the proper remedy which should be resorted to at once, is blood-letting, and a drench of sage tea and molasses, a quart at least given gradually, or milk and molasses, or Mr. Trotter's remedy, followed in from one to two hours with a large dose of castor oil. If delayed until inflammation is set up in the stomach, the case becomes more complicated and less easy of treatment—promptness is the word. F. J. R.

March, 1857.

A GREAT WOOL GROWER.—The Manchester Mirror, says that Mr. ABRAHAM MELVIN, of Weare, N. H., recently sold 25,000 pounds of Spanish Merino wool to parties in Boston for 60 cents a pound, amounting to \$15,000. The wool was his own raising, and part of a three years' stock.

#### SEEDLING POTATOES SPONTANEOUSLY PRODUCED.

*Mr. Editor*—It has long been a question of interest in my inquiries—are new varieties of the potato ever produced spontaneously from seed-balls falling upon the ground in the autumn and germinating the next spring?

The analogical fact that seeds of many tropical plants, such as those of the cucumber, melon and pumpkin—but especially of the summer squash and tomato, do frequently thus survive the winter, strongly suggested that such might be the fact with the potato. The uncertainty of many new potatoes, suddenly coming to light in some neighborhood, also led in the same direction. Happily this question is now settled, in a positive and most interesting manner.

In 1855, I cultivated, in one corner of my garden, nineteen hills of a seedling potato, derived, in 1853, from the Early Mountain June, and which I have named the Early Mountain June Pink Eye. I had another plat of the same variety, of twenty-four hills. This variety is very prolific in seed balls, averaging that year about seventy balls to the hill. Just after my fall digging, I gathered perhaps one-quarter of these balls, and left the remainder to rot upon the ground. My garden was plowed the next spring, May 6th, and the other plat still earlier, the occupant sowing it with barley. The plowing, in both cases, was earlier than the time when the potato seed finds heat enough to sprout. The plat in my garden was planted partly with sweet corn, May 20, and partly with citron melons, June 12th. When hoeing the corn, June 12th, and preparing the hills of my melons, which were to be transferred from my hot-bed, the soil was found pretty thickly covered with young potato plants, from one inch to an inch and a half high. A small portion of them, only (41 hills) were spared, standing at a distance of three or four feet apart. Subsequently, (July 2d) all those growing in the sweet corn were removed with the transplanter to another place, it being apparent that the shade of the corn would ruin them. Those in the melons were left to grow there permanently. After the discovery of those in my garden, I visited the site of the other plat, and found them springing up thickly with the barley. These last, being in light soil, were all burned up during the heat of the last summer, having to contend, moreover, with the barley around them. Those in my garden were treated as potatoes usually are, viz. hoed twice or three times.

In the fall digging, I selected 12 varieties from these 41 sorts, which seemed sufficiently promising to justify further trial. The most of them contained tubers of eatable size.

As this ground was plowed very deep, the most of the potato seed was obviously turned under too deep ever to grow and find its way out. I shall look, therefore, with interest, after my next spring's plowing to see whether any of the buried seed has retained its vitality sufficiently to grow the second year. During the progressive culture of the melons and sweet corn, new seedling potatoes kept coming up, some of them as late as September.

If now we suppose that another person had occupied this garden, ignorant of what I had cultivated upon it in 1855, he might have taken these young potato plants for tomatoes, permitting them to grow where they came up, or transplanting a portion as I did. The consequence would have been just the same, that is, new varieties of seedling potatoes spontaneously originated, though aided by culture.

Altogether this experiment, though involving little wisdom or labor, is full of interest in the history of potato culture.

C. E. GOODRICH,

[in Jour. of N. Y. State Society.

Utica, February, 1857.

## CHINESE SUGAR CANE AND MILLS.

LEVI BARTLETT, Esq., writes the "*Granite Farmer & Visitor*," as follows:

*Mr. Editor*—The present high prices of sugar and molasses, have produced a very general desire to experiment with the newly introduced Chinese Sugar Cane. The favorable results in the manufacture of molasses from the juice of this cane, in various sections of the country the past season, seems to hold out great encouragement to us, even here in the Granite State, that at least molasses, if not sugar can be profitably made for family use. The past season the cane was successfully grown in a various sections of the State; and it is confidently asserted that it can be successfully grown wherever Indian corn fully matures.

There is much inquiry respecting the form or construction of a mill for crushing or grinding the cane. Many persons seem to think some kind of a press is necessary to extract the juice after the cane is ground. This is all a mistake.

Mills for crushing and at the same time expressing the juice, can be built for, perhaps, one-fourth of the cost of a good cider mill—I will here give a description of some efficient and cheaply constructed mills, in this and some other countries. The descriptions may aid us much in putting up crushing mills the coming season. Perhaps it might be well for a few persons in the same neighborhood to "club together," and build a mill, and procure sheet iron pans for boiling the juice, all of which might be readily moved from farm to farm. It may not be advisable to go into large expenditures till the thing has been more fully tested.

Sugar cane is grown to some extent in some portions of Mississippi. By the last census returns, it appears that the crop of 1849 was equal to 388 hogshheads of sugar, and about 18,000 gallons of molasses. Many of the most substantial planters making all the sugar and molasses required for their own use, with some to spare to their neighbors. The sugar mills are rude and of small dimensions, consisting, in part, of little more than the rollers for grinding the cane, which are made of seasoned oak timbers, and stand generally in the open air. A cheap shed suffices for a protection of the kettles, which are common iron ones.

Lieut. Herndon, U. S. Navy, in his explorations from Lima on the Pacific, across the Andes, to Para, on the Amazon, in Brazil, frequently speaks of the Sugar Cane, and sugar making. So also does Lieut. Gibbon.

Lieut. Herndon visited a plantation near Tarma in Peru, and says, "Sugar cane is extensively cultivated. Two men to cut and two to carry, will supply a mill which consists of *three upright wooden rollers*, in a rude wooden frame. The rollers are *ragged* and placed close to each other. The head of the middle one extends above the frame, and is squared, so as to allow the shipping on it a long beam, to the end of which is harnessed, which walking in a circle, gives motion to the rollers. The end of the cane is placed between the rollers and is drawn in and crushed by them; a wooden trough is placed below to catch the juice. Such a mill will produce 1,500 pounds of juice in a day. These 1500 pounds of juice will give from 250 to 300 pounds of sugar, which is worth in Tarma 12½ cents per lb."

Sugar cane is the most useful and valuable product of that section of the country. The leaves of the cane when green serve for food for cattle; when dry to make wrapping for the candy and sugar. The crushed stalk is used as fuel for the oven. The hogs fatten on the foam at the top of the boiling. From the first boiling is made the candy or brown sugar cake, which is eaten after dinner by almost all classes. It is worth 6½ cents the pound in

Tarma, From 1,000 pounds of juice boiled ten hours, is made 400 pounds of candy.

In the late published volumes of Commodore Perry's expedition to Japan, I find an account of the sugar mills of the Island of Lew Chew. These mills consist of three upright cylinders of hard wood, supported in an upright position, by means of a wooden frame. The cylinders are about a foot in diameter, and arranged in a row, with a mortice between them, to regulate the approach and their pressure upon the cane. The central one has a wooden axle, or shaft extending through the frame which supports it, to which is attached a curved lever of 15 feet in length, by which the mill is readily worked. This central cylinder has a row of cogs of hard wood near its upper end, which play into mortices cut into each of the other two cylinders. A single bull or horse is generally used to work the mill, and the animal moves in a circle of about thirty feet in diameter. The cane is placed first, between the central and right hand cylinders, and before it escapes is caught in the hand of the workman, and, being twisted like a rope, is thrust between the central and left rollers, by which it is completely crushed and its juice expressed, which flows through gutters into a tub, placed in a hole near by. The juice is then conveyed to buildings, temporarily constructed for the purpose, and there boiled in *iron pans*, holding about 8 or 10 gallons.

In connection with the above description, there is a well executed engraving, showing two mills in use, and many other of the operations in sugar making. The plate reminds one very strongly of an old-fashion mill for grinding apples for cider.

The foregoing descriptions are so intelligible, that we think every millwright would readily construct one, and if the manufacture of syrup is found profitable it will then do to "go in," for more costly fixture, &c.

Warner, March, 1857.

## TRADE OF MOBILE.

*Statement of the quantity and estimated value of articles of Merchandize, of domestic growth and manufacture, exported from Mobile, Ala., in the year ending Dec., 31, 1856, by T. Sanford, Collector of Customs:*

Articles.	Total.	Average price, \$	Valuation.
Brick, common.....	4,000,000	8 00	\$ 32,000
Cotton.....	557,243	0 9	2,607,903
Hides.....	23,630	2 50	59,075
Lumber, pine.....	8,184,000	01	81,820
Lumber, hewn.....	1,369	7 00	9,583
Masts and Spars.....	2,158		172,640
Oysters, bushels.....	40,000	1 00	40,000
Oysters, gallons.....	8,000	2 00	16,000
Rosin, bbls.....	13,838	1 75	24,316
Spirits Turpentine.....	20,000	50	10,000
Staves.....	318	50 00	15,900
Tallow.....	10,000	10	1,000
Tar and Pitch.....	2,000	1 50	3,000
Total.....			26543157

**PRESERVES IN TIN CASES.**—The *New Bedford Mercury* learns that a lady residing in that city was badly poisoned a few days since, by eating a few spoonfuls of preserved whortleberries which had been put in a tin case. The liquid from the berries had formed verdigris on the surface of the metal. For several hours the lady above mentioned remained in a nearly insensible condition, and was with difficulty brought to. The article was procured for the purpose of making pies. All preserves of this description should be put and kept in glass.





## The Southern Cultivator.

AUGUSTA, GA.

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### CONCRETE, OR ARTIFICIAL ROCK HOUSES.

IN answer to, very many inquiries, and as a prelude to a more extended article on this subject hereafter, we will briefly describe the method of constructing a Concrete

House, such as we have recently built, and now occupy.

**1st. LOCATION, &c.**—Select, if possible, a high and dry situation, and get your heavy materials, such as rock, sand, lime, gravel, &c., on the spot as early in the season as possible; say by the first or middle of May, in order that you may avail yourself of the long, warm days of summer, for successfully carrying on your operations.

**2d. MATERIALS.**—The proper materials are *Lime, Sand* coarse and fine *Gravel*, large and small *Rock* and *Water*. The lime may be from any good, pure limestone, that will slack readily and “set” or harden thoroughly, when dry; the sand should be sharp, and as free from clay loam, and other earthy matter as possible; and the Gravel and Rock may be of any size, from that of a boy’s marble, up to 18 inches or two feet square, according to the thickness of your walls.

**3d. FOUNDATION.**—Having fully matured your PLAN, lay off your *foundation*, and commence by digging a trench two feet wide and two feet deep, the area or full size of your outer walls. With a heavy piece of hard wood, squared or rounded at the lower end, pound or ram down the earth in the bottom of this trench, going over it repeatedly, until it is solid and compact. A layer of hydraulic cement mortar, two inches thick, spread evenly over the bottom of the trenches thus compacted, gives you a solid foundation to start on, as soon as it “settles,” or becomes hard. If you intend carrying up inside division walls of concrete, the foundation for these should be laid in the same way. Good hydraulic cement will take at least three parts of sharp sand; but it must be used as soon as mixed, or it will “set,” and become useless.

**4th. FRAME AND BOXING.**—Cut common 3 x 4 scantling two feet longer than you wish your highest story to be; set up a double row with the lower end resting firmly upon the edge of the hardened cement in the bottom of the trench; range them true and “plumb” them; letting them stand three or four inches farther apart than you desire your wall to be in thickness; then nail cleats across, above and below, to keep them in place, adding also “stays” or “braces,” driven slantingly into the ground, and nailed to the scantling at the upper end. Your skeleton or frame—work of scantling, being all set up and “stayed” firm and “plumb,” proceed to arrange your “boxing” for holding the concrete, and keeping the walls in shape. This is done by cutting sound inch or 1½ inch plank of 10 inches or a foot wide, so to fit inside of the

two rows of scantling and form two sides of a box. Movable pieces, the thickness of the wall are dropped in between, at intervals to keep the box of the proper width, and wedges driven in between the boxing and the scantling, on the outside, prevent it spreading by the pressure of the concrete. Wooden “clamps,” to slip down, here and there, over the upper edges of the box, will also be found very serviceable.

**5th. MIXING CONCRETE, LAYING UP, &c.**—It will be well to have at least four large mortar beds, one on each side of the house, made of strong plank, in the usual way. These should be surrounded by casks of water (oil casks cut in two, are excellent); piles of rocky sand, gravel, &c.,—the lime of course, to be kept under cover, and used as wanted. Slack up your lime until it forms a thin, smooth creamy mass, then add four or five parts of clean, sharp sand, stirring and mixing constantly, and using water sufficiently to bring the whole, when thoroughly mingled, to the consistency of a thick batter. Into this “batter,” mix coarse and fine gravel (that has previously been screened and well dampened) until the mass is thick enough to be lifted on a common shovel. [The proper and careful mixing of the sand with the lime, and the gravel with the mortar afterwards, is very important, and should only be entrusted to your most careful hands.] Having one or two “beds,” full of this mixture, you are ready to begin your wall. Wheel the mortar to the foundation in common rail road wheelbarrows, letting the common hands shovel it into the bottom of the trenches, while the superintendent or “boss” workman spreads it evenly with his trowel. When the bottom layer of mortar, 3 inches thick, is laid in, wheel large and small rock (previously sprinkled with water) to the wall, and press it into the soft mortar at every available point, leaving a small space between each piece of rock, and working the soft mortar against the plank boxing, to preserve a smooth surface on the wall. When you can press no more rock into the mortar, pour another layer of the latter over and through the rock, then add a layer of rock as before, and so on, until your boxing all round is full. You have now 10 inches or a foot of wall, all round, built; and if the lime is good and the weather dry, it will be hard enough in 24 hours, to raise your boxing another tier. This is readily done by knocking out the wedges between the plank and the scantling, raising up the plank and sustaining it in place by “cleats” nailed on the scantling. In raising the boxing, begin at the point where you commenced laying up the day previous, as that portion of the wall with, of course, be the hardest. It is not necessary to raise all the boxing at once, or go entirely around the wall in a day. A foot or yard of the wall can be completed at a time, if advisable; but if the complete round can be made, so much the better. Planks to cover up with, in case of a sudden shower, or when a storm is apprehended, should be provided, and placed within reach.

**6th. GENERAL DETAILS, FLOORS, WINDOWS, DOORS, &c.**—We prefer a cement floor for a basement, on many accounts; but those who desire a wooden floor, should leave air-holes in the outer walls under the lower floor, six inches above the surface. This may be easily done, by inserting wedge-shaped blocks or pins through the wall, to be knocked out afterwards. When you are ready to lay the floors, level up your walls and run one course of brick all around, the thickness of the wall, for the ends of the flooring joists to rest on—filling in around these ends with concrete, when they are fixed in their proper places. The door and window frames should be made of 3-inch yellow pine, the full thickness or width of the walls, and may be set up and built around, like those in a brick house, as the wall progresses. A piece of common inch plank, “cut in” all around them, to prevent the

actual contact of the damp mortar, will keep them, in a great measure, from warping. Where base-boards are needed, blocks of scantling may be built in flush with the inner surface of the wall, at the proper distances apart. We cannot think of any other particulars in which a concrete house differs from one built of brick; and we need not, therefore, enter into more minute details, at present.

**7th. ADVANTAGES, COMPARATIVE COST, &c.**—A house of this description is admirably adapted to our Southern climate. Being a non-conductor, it is cool in summer and warm in winter—the walls do not absorb moisture from the atmosphere, like a brick house—with a cement floor, it is proof against every description of vermin—it is not near as liable to burn and decay as a wooden house, its walls becoming harder and harder, with age, until it is almost a solid mass of rock; and it possesses an enduring and permanent character, superior in many respects, to either wood or brick. Its most striking advantages over brick are, that it can be built in many locations where brick cannot be readily obtained—that it costs much less than brick, in almost all cases—and that the erection of the walls only needs the superintendence of one good mechanic, (mason or bricklayer) all the heavy labor being done by common field hands. The walls of our dwelling at "Fruitland," enclose an area of over 50 feet square—they are 20 feet high, 18 inches thick in the basement [9 ft.] and 12 inches in the upper story [11 ft.] with two lower partition walls, 9 feet high, 1 foot thick, and 52 feet long each. Lime cost 50 cents per bushel at the Railroad, and we hauled it nearly 3 miles; the large rock was quarried and hauled from Rae's Creek, a mile off; the water for making mortar, hauled in a cask, over a quarter of a mile; the process of putting up such walls was entirely new to our workman and ourselves; and yet, in the face of all these difficulties, we have completed the walls at one-third less expense than any brick contractor in Augusta would undertake to do them for. We can safely say, therefore, that, wherever lime is not worth more than 20 or 25 cents per bushel, and rock, sand and water are convenient, a house of this description can be built nearly as cheap as wood, and at half the cost of brick; and, for ourselves, we would not exchange it for the best samples of either.

We have in preparation, a drawing and full description of our dwelling, which will probably appear in our July number. In the meantime, it will afford us great pleasure to give any further suggestions or explanations on this subject, through the *Cultivator*; or personally, to any gentleman who may call upon us at "Fruitland."

D. R.

**THE WEATHER AND THE CROPS.**—The Spring has been and is still (April 20th) unprecedently cold and backward—nearly all the early blooming fruits and forward vegetables have been cut off by frost, wheat corn, and what little cotton was up, in our more Southern States, have suffered severely—early planted rice has been much injured, and the Agricultural and Horticultural prospects of the South, generally, cannot be considered very flattering, at present. Still, our season is so long and our climate so benign, that all that is necessary to secure abundant harvests, is the employment of a little extra energy and well directed labor. "Speed the plow," with judgment and skill, then, and the reward is sure!

**FELTON'S PORTABLE GRIST MILL.**—We do not profess a very instinctive acquaintance with the principles of machinery, generally, and have heretofore been quite sceptical as to the value of Portable Grist Mills; but we must say that we are very favorably impressed with Felton's Mill. It seems to be quite simple and durable—is readily adapted to gin-gearing or other horse-power, steam or water—grinds up the corn and cob together, for feed, if

desired, and makes really a superior article of meal for family use, as we know by repeated trials. Planters and Farmers would do well to examine it carefully for themselves, and as the Agent, Mr. D. CHAFFEE, is doing a regular custom-mill business, for "toll" at the Machine Shop of Mr. PLATT, the facilities for seeing it thoroughly tested are ample. See advertisement in present number.

#### SORGHO SUGAR.

THE excellent article of our friend, Prof. H. S. OLcott, of the Westchester (N. Y.) Farm School, will, we are sure, attract much attention. The incalculable value of the *Sorgho* and *Imphee* is now fully established, and we look eagerly forward to more important developments, from the experiments of the thousands who are now engaged in their culture. Several of our immediate neighbors, as well as ourselves, will test the *Sorgho* more thoroughly this year, for syrup, green and dried forage, alcohol and as bread corn, and the results shall be duly set before our readers. We have high expectations of success with the new *Imphee* of Mr. WRA., whose advent among us we are anxiously expecting.

In answer to many inquiries, we would state that the *Sorgho*, or Chinese Sugar Cane will ripen its seed and come to full perfection, if planted in good rich soil any time before the middle of June, in this latitude. Early plantings, especially a little to the South of us, are sure to produce two crops of perfect seed—the canes being cut off six inches above the ground as soon as the first crop ripens. This was done here, last year. We shall attend the United States Agricultural Fair, at Louisville, Ky., and keep our readers advised of any improvement in mills, boilers, &c.

**THE VINE IN SOUTH CAROLINA.**—A friend, who is largely engaged in Vine culture in our neighboring State, writes us as follows, under date of April 13:—"In my letter of the 10th inst., I stated on the report of my vigneron that the frost on Monday night last had damaged some of the buds of the vine, but that it was not serious. On examination personally I find that one-quarter, if not one-third of the fruit buds were killed. The *Warren* suffered the most, and the common *Isabella* next, the *Burgundy* very little, and the *Catawba* and a late ripening variety of *Isabella* Grape, were scarcely touched. The *Blue Grape* is, only now, beginning to put out; so that it and the *Scuppernon* are clear of the frost. The other native and foreign varieties I have not noticed."

#### LIFIQUIFYING QUARTZ ROCKS.

NEARLY a page of the New York *Tribune* was recently occupied by Dr. BENJAMIN HARDINGE, in announcing a discovery by which he claims "to liquify quartz rock, to extract the last particle of gold or other metal which that rock may contain, and to hold that rock in the form of liquid in casks and hogheads ready to be turned into rock again as it is needed, thus affording a new material for building, cheaper than brick, and as beautiful as precious stones!" He can do this at the rate of fifteen tons a day! By way of support to this claim, Prof. GIRARD, of the Smithsonian Institute, Prof. ADELBERG, and J. E. SCHWABE, of New York; Prof. MAFROT, late United States assayer, and others, accompany the announcement of the discoverer with their certificate that his claim is not unfounded, that he can accomplish the wonderful feats which he claims to perform. If there is no deception about this, it must certainly be regarded as one of the greatest and most useful discoveries of modern times. We shall look with interest for additional developments.



## OUR BOOK TABLE.

How to WRITE: A Pocket Manual of Composition and Letter-Writing, &c., &c. This is the first of a series of popular Hand-Books, and embraces hints on Penmanship and the choice of Writing Materials, Practical Rules for Literary Composition in General, and Epistolary and Newspaper Writing, Punctuation and Proof correcting in Particular; and directions for writing Letters of Business, Relationship, Friendship, and Love; illustrated by numerous examples of genuine epistles, from the pens of the best writers; to which are added Forms for Letters of Introduction, Notes, Cards, &c., and a collection of Poetical Quotations. Price, in paper 30 cents, muslin 50 cents.

How to write is intended for a class of young people and others, who are not satisfied with the puerile and trashy works so common under the general title of Letter-Writers, who do not desire to be saved from the necessity of study and thought, but who will be grateful for a little guidance in their studies, and for such instructions as will aid them to think for themselves, and to express their thoughts in fitting words.

A leading New York paper, of a recent date, speaks of it in the following terms of high commendation:


"There are many 'grown gentlemen whose education has been neglected,' that will find invaluable assistance in the hints and directions of this little Manual. It has been compiled with excellent judgment from the best authorities on the subject, though the fresh and lively manner of the book is due to the Editor. The ample details which it gives in regard to the mechanical execution, social etiquette, and conventional forms of the various kinds of correspondence, constitute the most useful portions of the volume, and can scarcely fail to be of advantage to a very large class of letter-writers. We commend to our readers especially its directions respecting 'orders for newspapers' and other periodicals. They are explicit and admirable, and their general observance would save a world of trouble both to publishers and subscribers."

The same publishers have also just issued "How to Talk," "How to Behave," "How to do Business," &c. Price of each volume, 30 cents, paper covers; 50 cents, muslin. Address: FOWLER & WELLS, 308 Broadway, New York.

MASSACHUSETTS HORTICULTURAL SOCIETY. Reports of the Committees for 1857, with a list of members, &c. Boston: 1857.

The Reports of the Massachusetts Horticultural Society are always welcome; evincing, as they do, a thoroughness of discrimination, and a most liberal and progressive spirit in all that relates to the improvement of gardens and orchards, the introduction and trial of new fruits, &c. We are indebted to the kindness of Dr. EBEN. WIGHT, Corresponding Secretary, for the present and many previous Reports of the Society.

The *Cotton Planter and Soil, Farmer & Planter, Arator, Carolina Cultivator, Southern Planter, &c., &c.*, are all battling earnestly and ably for the Agricultural interests of the South, and should be warmly sustained by all our people.

 All subscriptions to the *Southern Cultivator* begin with the January number.

## HIDES AND LEATHER.

COUNTRY Tanners are so scarce at the South, and have local markets entirely so under their control that hides which are worth, green, 12 cts. a pound in New York, and ten in Savannah, are bought for six cents a pound in the interior of this State. On the other hand, good leather is sold at higher prices than we dare to name, lest our word should be doubted, or our information. The public good seems to demand the extension of this branch of manufactures; and where it is properly conducted, it is equally profitable to the proprietors, and beneficial to the community. It is the height of mismanagement to send our hides a thousand miles North to be tanned and curried, where bark is much dearer than at the South, and have the leather returned, taxed with several mercantile profits before it reaches the consumer. By this double loss, we get only half price for our hides and pay two prices for leather, boots and shoes. L.

MICHAUX'S BEQUEST.—We learn from the *Charleston Mercury* that Michaux, the well known French botanist and author of "American Forest Trees," has remembered the New World, in which he long labored, most munificently, in his last will and testament, bequeathing us the generous sum of \$22,000 for the encouragement of sylviculture and horticulture; \$14,000 to the American Philosophical Society, and \$8,000 to the Massachusetts Agricultural Society. It is now more than half a century since Michaux's first labors in this country, and there are at present growing on the Ashley River, South Carolina, says the *Mercury*, Camelia Japonica trees planted by his own hands, over thirty feet in height, branching from the very roots, and crowned every year with the glory of their magnificent bloom.

PEPPERMINT OIL.—Two towns in St. Joseph county, Michigan, produce large quantities of Peppermint, from which the oil is extracted by manufacturers there. In 1853, 25,000 pounds of the oil was produced, which brought, in the New York market, \$3 per pound. From 8 to 12 pounds is produced from an acre of the plant. The first crop requires a good deal of care; but the next two years it yields without attention. After the third year the crop must rotate, in order to rest the land. The mint is cut in August, and the oil extracted by distillation, filtered through flannel, and put up in tin cans for market.

SARDINES IN ALABAMA.—The *Columbus Sun* says:—The *Columbus Enquirer* learns that in the Coosa river, a few miles above Wetumka, sardines, precisely like those imported from the Mediterranean, abound and could be caught almost by the wagon load. We can testify to the correctness of the *Enquirer's* information. We have feasted on the sardines of the Coosa. They are caught in traps in great abundance by J. P. House, at his plantation on the Coosa, about 15 miles above Wetumka, and in the absence of a market near by for disposing of them fresh, feeds them to his negroes. They are, without doubt the genuine sardine.

**BE CAREFUL WITH GUANO.**—It may not be as generally known as it should be (says the *Philadelphia North American*) that great danger may be incurred by the reckless handling of guano. We understand that cases have occurred of persons having cuts upon their fingers who, in handling this manure, have received a deadly poison into the system. The guano contains an organic element which is just as certain to operate against life if it once reaches the blood, as the corruption of a body that gets into a wound upon the person of the dissector. Farmers should be aware of this fact and be cautious. We hear of a death from this cause occurring within a few days in a neighboring county.

#### CHINESE SUGAR CANE IN ILLINOIS.

Mr. E. BAKER, of Rochester Mills, Wabash county, Ill., writes to the *Belleville Advocate*, that he shall plant 25 acres with the Chinese Sugar Cane the present season. "I am convinced," he says "that the State of Illinois will in five years make her own sugar, and if I have luck I shall make, this season, enough sugar, and certainly will molasses, to supply my little town. At all events, I shall try."

Mr. KITCH, of Wabash county, who some months ago, made a statement of the result of his experiment with the Sugar Cane last year, offers to bet the sceptical editor of the *Charleston Courier*, \$500, that he will manufacture from one acre, "planted with the Chinese weed," five hundred gallons of molasses, a superior article to any manufactured in the South, and sold by the merchants in Coles county, in 1856 for 75 cents per gallon. And further, that he will manufacture it at the cost of 10 cents per gallon.

**WATER LIME.**—A correspondent of the *Country Gentleman* asks, what is water lime? and the question is answered as follows: which we insert for the reason that while hydraulic cement is known to most persons, it is by no means so generally known by the less seldom used name of water lime:

Water lime, which our correspondent may be familiar with, under the name of hydraulic cement, is made by burning an impure limestone, and then grinding it like plaster or gypsum, for use. When mixed with nearly twice its bulk of clean, sharp sand, and mixed with water it soon "sets," and by exposure to air and water, becomes, in a few months, hard like stone. Two parts of water lime and three of sand, usually make the hardest cement. A cellar, first smoothly paved with small stone, and then coated with water lime mortar, made of the best materials, is furnished with as perfect a floor as by the best flagging. Water limestone differs from common limestone by the impurities it contains, and more especially by a large proportion of alumina or clay—it does not burn so as to slack to powder, and hence needs grinding. It has been made artificially by mixing clay and some other ingredients with common or pure lime.

**A SNAKE WITHIN A POTATO.**—The *Chicago Journal*, of a recent date says, "that Mr. CHAS. E. DAY, of the North Side, yesterday showed us a boiled potato which, on being opened, was found to contain a small snake 2 inches long. It is an ugly looking thing. The development took place at the dinner table."

**FINE COTTON.**—The *New York Courier and Enquirer* has been shown a sample of Sea Island cotton, taken from a bale sold in Charleston, S. C., at \$1.25 per pound, probably the highest price paid in 20 years. The factors who sold this bale are confident that it is the finest bale of cotton that has ever crossed the Atlantic. The planter (of Edisto, South Carolina,) took the medal in the London Exhibition of 1851, and the prize bale, which spun yarn up to No. 900, is believed to be inferior to this. This bale was picked out by the lady of the planter with her own hands, and it is a marvel the perfection to which she has brought the staple. We understand it is to go to Havre.

**LUSUS NATURE.**—An exchange paper says:—Mr. Mason S. Barkley, of Jessamine county, Ky., has a mare that produced two colts, a few days ago, one of which was a horse and the other a mule colt. They were both good sized and perfectly formed. This is certainly a remarkable phenomenon, and the like of which we do not remember ever to have noticed before. What is still more singular, Mr. Barkley is not aware that his mare was ever bred to a horse the past year.

**LONGEVITY OF MULES.**—The *Medical World* says that there is a mule in possession of a farmer, near Ballingloss, Ireland, which has been employed in the transit of ammunition, &c., to Vinegar Hill, since 1798. There is saying that a white mule lives longer than any other mule. Some year ago, one of that color on Col. MIDDLETON'S estate, in South Carolina, was ever eighty years old, and was still at work.

**WHEAT CROP.**—The accounts from almost every part of the country give encouraging hopes for a bountiful harvest. In some localities the severe winter has injured it, but generally the crops are represented as looking remarkably fine.

[This was written before the late frosts. We fear the prospects are not so flattering now.]

**HIGH PRICED FOREIGN WINES.**—Mr. COZZENS gives us the following, in his "Wine Press:"

The Chateau Wines of Lafitte, Margaux, and Latour, of 1856, have all been sold at 5,700 francs per tun of 4 hogsheads, or 1,000 bottles. These are *vins sur lie*, wines on the lees, and will not be fit to bottle until four years at least, from the year of the vintage. Taking into account the loss sustained by racking the wines off lees, fining, leakage, interest of the money, &c., it is always estimated the wines will cost double the original price when ready for bottling. This will make the value of the wine itself about two dollars and five cents per bottle in France, irrespective of the cost of bottling, cases, &c. Add to these shipping expenses, and duties here at 40 per cent, and then what will these wines be worth in 1860?

**THE SEASON IN TENNESSEE.**—A correspondent writes us from Memphis, under date of March 17th:

*Editors Southern Cultivator*—Since the 1st of March we have had very cold weather—frost every night, and often ice. The ground slightly frozen. The early fruits are all killed, except in favorable localities. The weather has been very dry during that time, which is favorable.

Yours truly, W. B. H.

## COTTON CULTURE IN ALGIERS.

A correspondent of the *Liverpool Times*, gives a rather discouraging report of the French effort to supply the markets of the world with cotton raised in Algiers. He writes:

As to cotton, the utmost that the most enthusiastic Frenchman can say about it is, that it is an expensive experiment. I have asked in vain for those cotton plantations which produced the *longue soie* and the *cotton jaune*, and the fine stockings which we saw at the French Exposition, (World's Fair). I have been told, as a fact quite decisive of the cotton question, that the prize of 20,000 francs, offered annually by the Emperor for the best specimen of *longue soie* cotton, had been divided, in 1855, between a Frenchman and an Arab. This fact suggests the conclusion that natives and colonists are all striving against each other to produce cotton, and that all French Africa is covered with competing cotton plantations. The fortunate winner of the 10,000 francs is the 'Caid Ali Ben Mohamed, whose plantation is near Guelma. As I had asked in vain for cotton, wherever I had been, I had made preparations to take a two day's journey on mule back, in order to see the famous plantation, when I fortunately met with a distinguished Arab, who knew both the place and the Caid, and who assured me that this cotton plantation amounted to about fifteen acres. Subsequent inquiry confirmed this statement, and I came to the conclusion, that the Guelma cotton plantation was not worth four days' journey, and the further chance, if the rain should come on, of being shut up in that country for a month.

With all the forcing of the Government and its proposition to buy all the cotton produced there, at a favorable price, all the land cultivated with cotton at the last published returns was 1,000 acres, and for that produced the Government paid 300,000 francs. The writer adds:

Seeing that the cotton produce throughout the world is, I believe, about 700,000 tons, whereof England consumes about 350,000, there does not, I fear, appear much likelihood of Algiers becoming a very formidable competitor of the United States.

**AMERICAN TEA A FAILURE.**—A correspondent of one of our contemporaries, writing from Greenville, South Carolina, says:

I am within a few miles of the place where the experiment was made of raising Tea. It has proved a failure. The plant will grow well enough, but wages are too high in this country. We cannot afford to pick, roll up and dry any sort of leaves here for half a dollar per pound. In China, where a man is hired for one dollar a month and boards himself, it may be done.

**WASH FOR APPLE TREES.**—Mr. J. F. C. HYDE, of Massachusetts, recommends a weak solution of potash and water as a wash for apple trees. A pound of potash to a pailful of water was his proportion. A half pound of potash in a pail of water would be sufficient to kill off the moss [and insects] on the bark.

**ORANGE AND LEMON CULTURE.**—We hope some of our capable correspondents will respond to the following request of a lady subscriber in Louisiana:

*Editors Southern Cultivator*—You will much oblige me by making the enquiry through your columns for knowledge in the cultivation of Orange as well as Lemon trees.

H. S. S.

**DURHAM CATTLE FOR CALIFORNIA.**—Messrs. B. & C. S. Haines, of Elizabeth, N. J., have just made a shipment of Short Horns to Geo. H. Howard, of San Francisco, the first of this breed of cattle sent to that State. The lot embraces one bull, two years old, and one about six months; and two heifers a year and a half old. We shall look with much anxiety for the success of this first undertaking to introduce improved cattle into that great State, so well adapted to the business of stock-raising.—*Exchange.*

## Horticultural Department.

## ORNAMENTAL TREES AND SHRUBS FOR THE South.

[Continued from our April number, page 126.]

*Glycine chinensis*, also called *Wistaria*.—Of the rampant climbers, this, which was introduced from China in 1818, produces the most gorgeous clusters of pea-flower shaped blossoms, of a beautiful pale lilac color. Its growth is so strong, that I have known the vine to grow six inches in twenty-four hours. In rich moist soil, and fully exposed to the sun, it will cover a trellis in a very short time. A crimson, as well as a pure white variety have recently sprung from seeds in Europe, both of which, however, are quite rare in America.

*Malaisia, diptera*, and *Malaisia tetraptera* (Silver-bell).—These plants are indigenous to our swamps, but well worthy of a place in our gardens and parks. The former, with a large flat, two-winged seed, is the prettiest. Its numerous, white bell-shaped, drooping flowers, like *draps*, are highly ornamental during the month of April. Ten to fifteen feet high.

*Hibiscus Syriacus* (Althea) is so common in our gardens, as almost to have fallen into disrepute.

*Kerria japonica*, also called *Cordebus japonicus*, from Japan. Though quite common, still it is very ornamental in the early part of the Spring when loaded with its bright yellow flowers, beautifully contrasting with the dark, glossy green stems and foliage. As the young shoots are blooming better than the old ones, the shrub should be pruned often and severely. Six feet high. Propagated by suckers.

*Koelreuteria paniculata*, from China.—A small tree, not attaining more than fifteen feet in height, with leaves like those of the "Pride of India." The flowers also resemble those of the latter, but are bright yellow, marked with a scarlet centre. Propagated from seeds.

*Lagerstaemia indica*.—When this tree was first introduced from East-India to Europe, nearly a hundred years ago, it created quite a sensation among horticulturists, and even now it is highly appreciated in the North. Notwithstanding it is one of most ornamental trees, still it is so common, as hardly to be valued. A white variety is much looked for, and would be quite an acquisition, but has not yet been discovered.

*Magnolia*.—Of all the deciduous species of this beautiful family the *M. conspicua*, with large white, and *M. obobata* with large purple flowers, are very ornamental in our gardens in March, when flowers are scarce. They are propagated by layers and suckers.

*Paeonia arborea* (Tree Paeony) is one of the most ornamental shrubs I know of. Its very double flowers have been so much improved by high culture and hybridising that we now have a great variety of shades from pure white to crimson. The tree paeonies should be transplanted early in the autumn, say in October, and in rich, deeply worked ground. If the situation is somewhat moist, and on the north side of a building, where they could have some shade, so much the better: if not, they should have a mulching with litter during the hot part of the summer.

The propagation is rather slow and difficult. Cuttings will root but slowly; the best way is by grafting them on Pæony roots. They grow from 4 to 5 feet high, and a watering with liquid manure is very beneficial to them.

*Pælonia imperialis*.—A great deal was written in favor of this tree, when it, some 12 or 15 years ago, was introduced from Japan to Europe. It resembles the *Catalpa* in growth, foliage and form of the flowers, the latter, however, are of a pale blue color, and appear very early in the spring. Its growth is very vigorous, and I have seen it throw up a straight stem 18 feet high in one summer.

*Philadelphus coronarius*, from the South of Europe, resembles the common *Philadelphus* of our swamps in every respect, but the flowers are nearly as fragrant; as the Orange blossoms. Four to six feet high. Propagated by suckers.

*Poinciana Gilliesii*.—This South American shrub of recent introduction has proved a great acquisition to Southern gardens. When planted in rich and moist ground it will bloom constantly from the beginning of May until November. The flowers are large, straw-colored, with very long, bright scarlet stamens, and produced in large heads or clusters. From six to eight feet high. Propagated from seeds.

*Punica granatum variegata* (Pomegranate).—The double scarlet and double white varieties are old customers in our gardens. The most beautiful variety, however, is the variegated, straw-colored, beautifully edged with bright scarlet.

*Ribes aurea*, from Missouri, and called "Missouri Currant,"—Early in the spring it produces its yellow flowers in small clusters. The flowers are exceedingly fragrant, like Carnations. Six feet high. Propagated by suckers.

*Robinia* (Locust).—Every person knows the common Locust, and it might seem ridiculous to recommend it; still some varieties are very fine. *R. incana*, or *unbraculifera* is very beautiful, forming a close globe-shaped head, as if done by art; it is well adapted to avenues or in the front of a building. *R. hispida* produces very large clusters of rose colored flowers, and often blooms twice during the summer. The pyramidal and the weeping Locust are also odd-looking and highly ornamental in large gardens and parks.

*Sabotaria* or *Ginkgo Tree*, from Japan, has a very peculiar and strange looking foliage. Ten to 15 feet high. Propagated by cuttings.

*Salix* (Willows).—But few of this large family are ornamental. The Weeping Willow, though common, is very beautiful after it has attained a good size. The Ring-leaved Willow is a curiosity. The Caspian Willow *Salix acutifolia*, and the yellow barked Willow, *Salix vitellina*, are beautiful near streams in a park.

*Spiræa*.—We have several very beautiful species of this fine family of shrubs. *Sp. pumila* is perhaps one of our most charming shrubs in February and March when loaded with its white double flowers, looking as it covered with snow. *Spiræa Roemerii*, comes a little later, but is equally as fine, with long wreaths of lovely white blossoms; a variety with double flowers has just been introduced, and is splendid. *Sp. Douglasii*, *Sp. callosa* and *Sp. b. fl.* are all beautiful species with pink flowers, and worthy of a place in any Southern garden, even in the smallest.

*Stereulia planifolia*, (Varnish Tree) from China.—Perhaps one of our best shade trees in the South. Grows very rapidly, with a straight stem and a sleek, green bark; forms a symmetrical head with very large leaves. It has a tremendous tap-root, and will, therefore, not, like the China tree, get blown out of the ground. It never gives suckers, and no insect ever troubles it. Thirty feet high. Propagated by seed.

*Symphoricarpos racemosa* (Showberry).—Although this little shrub is indigenous to Canada, still it stands our Southern climate pretty well. The shrub itself is rather indifferent until autumn, when it shows its pure white berries in close bunches. These berries, of a very peculiar appearance, will keep on the bush until Christmas. Two or three feet high. Propagated by suckers.

*Syringa vulgaris*, (Lilac).—Like so many others of our ornamental shrubs, we got this from Asia. They are too well known to need any description. The finest are: the pure snow-white, and the Chinese; the latter is pale purple, and blooms twice in the season, viz. in April and in September. Both require rich moist soil; and are propagated by suckers.

*Tamarix*.—A beautiful shrub from the South of Europe with exceedingly delicate foliage, and a graceful aspect. The pink colored flowers are produced in long spikes. It prefers rich soil and is most beautiful when planted on the banks of streams. Six to eight feet high. Propagated from cuttings.

*Weigelia rosea* was introduced by Mr. Robert Fortune about ten years ago from China into England. It is, in general, admitted to be one of our finest ornamental shrubs. It forms large clusters of pink colored flowers, beautifully arranged among the foliage. Another, *Weigelia amabilis*, is quite new, perhaps still more graceful, than the first named species, which it resembles, but blooms for a much longer space of time. Four to five feet high. Propagated from cuttings.

*Viburnum* (Snowbell).—This is a large family of plants, most of which have not yet been sufficiently tried in the South. The common Snowbell, *Viburnum Opulus roseum*, produces beautiful, large, white, globe-shaped clusters of flowers. It does best in rich moist clay soil, as it, in its wild state, always is found in such locations. *Viburnum Opaeacus* (Cranberry Bush) does also well here. Four to six feet high. Will grow from cuttings, but more certain from layers.

*Virgilia lutea* (Yellow Wood).—A very fine American shrub, though very rare. In foliage and flowers it resembles the Thornless Locust. Ten feet high. Propagated from seed and layers.

*Vitex Agnus Castus* (Chaste Tree), from the South of Europe, produces numerous heads of neat blue flowers; and can be kept in bloom nearly all the summer; by constantly cutting off the flowers. The foliage has an odor like lavender. Ten feet high. Best propagated from seed.

ROBERT NELSON.

*Fruitland Nursery, Augusta, Ga., April, 1857.*

LONGEVITY OF THE PEAR TREE.—A Brussels writer says,—"In a light, free soil with a rich, deep subsoil, in which water does not stagnate in winter, the trees preserve throughout their individual existence a healthy degree of vigor, and bear abundantly. If the soil is rich in humus, or if it is marly clay of some depth, resting upon an equal depth of silicious gravel, mixed with brick earth, lying upon thicker beds of sand which absorbs moisture, the growth of the Pear tree will there, be more compact, less luxuriant; but the tree will bear fruit of a finer flavor, and will generally live longer. We found growing in an orchard in West Flanders, a variety of Pear, under the name of Poire de Froment, (Wheat Pear) doubtless the descendant of a variety known among the Romans as the *Pyrus Hordeana*, the fruit of which ripened about the same time as barley. This majestic tree has two upright parallel stems, is twelve feet in circumference and forty-five feet high. In 1854 it produced fifteen sacks of Pears. The bark is deeply rent in many places, indicating that the tree was of great age. The farmer, himself 85 years old, told me that his grand-father, who died 50 years ago, at the age of 92, had frequently told him that, it produced a rich boyhood.

## PRUNING IN SUMMER.

BY G. M. KERN.

HORTICULTURISTS and Gardeners unanimously concur in the opinion that pruning is an important operation. Different opinions, however, obtain among them concerning the manner in which this important operation may be most successfully and profitably performed. If we ask the industrious nurserymen or orchardist why he annually cuts off so many large branches, and twigs, and buds, from his trees, we are told that such procedure is necessary to obtain fine, straight, and thrifty trees, to secure well proportioned heads, and to produce therefrom a bountiful crop of fruit. The vegetable gardener and florist, also, freely employ the pruning-knife. The one stoops down over his cucumber vines to make them accommodate themselves to the narrow limits of a hot-bed, in view of forcing them to bear an early crop; and the other tops and stops his plants in pots in order to obtain a bushy and profusely flowering growth. The vine dresser, too, finds it indispensable to trim his vines that he may produce an abundant harvest of the grape; and with the hedge grower, pruning is the all-important work which alone is able to render his endeavors profitable and successful; and he has yet to contend, it seems, with an endless multitude of opinions, countless queries and innumerable vexations resulting from the unsettled state of our general knowledge on this particular subject. In all these various branches of Horticulture, pruning aims to attain one common object; it must be the means employed to give us entire control over the *bona fide* growth or vegetation of the plant or tree.

We may distinguish two main purposes which all rational growers of fruit trees must keep in view to obtain the results desired: The first, of the greatest moment, and which may be said in some degree to involve the other, is to control the equilibrium of the sap throughout all parts of the tree; and, second, to regulate adroitly the respective quantities of fruit-bearing and leaf-making portions. If the proper means for the attainment of this end are understood, the question at once arises—which form and habit is the tree to receive? In one case we permit nature to pursue her own course, allowing the tree to attain its natural shape and dimensions; in the other case we force the tree to grow according to our own patterns, a pyramid an espalier, or even a hedge.

For a full understanding of the means to govern the equilibrium of the sap, we must look to one of the principal laws of vegetable physiology, upon which all proceedings, in this particular, must be based. The fluid nourishment taken up by the root, ascends through stem and branches into the leaves, where it is altered in its nature, by a process of breathing or respiration; from the foliage, as the lungs of the tree, the fluid descends again into the branches and trunk, to be deposited as a new layer between the bark and former wood, thus swelling the size of the tree, by depositing these layers, or, as they are familiarly called, "growths," from year to year; and a portion of this descending fluid, after having been thus elaborated and fitted for these functions in the leaves of the tree, passes into the germ to form and bring forth fruit to perfection. It is, therefore, manifest, that the breathing organs, the leaves, are most important agents in the vegetative process, and by the healthful quantity of its foliage the vital power and successful fruitage of the tree are governed. For this reason, the shortening of branches becomes necessary when a tree is transplanted, by which operation the roots are always more or less injured. Roots and leaf-making branches must, here, be dexterously balanced. Every bud that develops itself, in spring, into a shoot with more or less foliage, is, therefore, a pump on the quantity of sap which the root is able to receive.

And here it is well to consider that the course of sap is always "onward and upward;" the highest placed buds, therefore, naturally receive more than the lower ones.—Every part of a tree, therefore, which has assumed too strong a development at the expense of other parts, can be controlled, by depriving it of parts of its buds, *i. e.* by making that part shorter, while the weaker portion should be encouraged by being left unpruned. But it is found that gardeners too often counteract this axiom in the science of pruning, and erroneously hold to the doctrine that a branch is made to grow stronger by shortening, while the long growth makes it weaker. This must not be confounded with the usual practice of shortening-in branches with a view of uniting their whole supply of sap for the benefit of a few eyes, which must then, of course, take on a stronger development than if this supply had been distributed to many buds. On this principle, older trees, whose branches are disproportioned to the vigor of the roots, and which are frequently exhausted by heavy fruitage are greatly benefited by being "shortened-in," the vegetative capacity of the roots and branches being thereby adjusted to a fairer balance.

Passing on from the great number of high-stemmed fruit trees, wherein nature herself provides for a general growth and uniform distribution of sap, to the class of the dwarf trees, we find that the main purpose of the gardener should be, to bring the lower lateral branches to perfection. To accomplish this object, he naturally finds it necessary to shorten the leading top branches, allowing the lateral branches to remain longer, in order to form a well proportioned pyramidal top. The same object must be kept in view by the hedge-grower from the very beginning of his operations. To secure a proper density in the bottom part of his hedge, is the most important item in his calculations. He aims to accomplish this by trimming, very closely, the ascending shoot of the previous summer; but, with increased vigor, new and stronger shoots burst forth, and, if no timely stop be made in their disproportioned upward growth, these again are to be abated in the coming year.

And here the great question arises—what means are at hand to control this growth in summer and limit its development to the desired point?—for certainly it would be quite unreasonable to suppose that to be a sound and sensible horticultural practice by which the tree is allowed, during the summer, to make as many shoots as its vigor may prompt, and which the gardener sees growing all the while with the pleasing prospect of cutting them all off the following spring. In view of such practice, well might we ask whether the vegetative powers of the tree might not be more economically managed? and, whether a fruit tree must necessarily produce a heap of useless brush-wood before its energies can be directed to the production of fruit? And under such treatment, is it to be wondered at that many complain that their trees do not bear well?

After the buds develop themselves into young shoots the course of the vegetative process in the trees should be closely watched. The outline and ideal of a perfect and pyramidal dwarf tree, with all its details, should stand out in a lively image before the imagination of the gardener; and, during the summer growth, it should be his aim to so direct the ample store of new production as to bring it, in the nearest degree possible, to a perfect tree, and to profit, by every means in his power presented by this redundant growth, to secure fruit for the ensuing year. With these considerations before his mind, his first efforts should be directed to secure for the tree a competent top-leader. If the shoot of the uppermost eye promises to become such, it may be preserved for that office. But, if inferior to some of its lower neighbors on the branch, some of the latter should be chosen for the leader;



in which case the extremity of all other surrounding shoots should be carefully pruned off when about six inches long. By this means, the leader will gain in strength, while the other shoots, which are to become the lateral branches, are, for a time, arrested in their growth, and thus their due proportion is preserved. It is, however proper to remark that it may become important to stop the exuberance of growth in this leading shoot itself, when it seems to draw too largely on the supply of its fellows; this is done, whenever it becomes necessary, by pruning off a few inches of the extremity. The leaders of the lateral branches should also be examined and treated in like manner in order to secure a suitable leader, well proportioned to the minor shoots of the same branch. Particular attention should be bestowed upon the small shoots which are to become the fruit-bearing branches. It frequently happens that their terminal shoot takes on too strong a growth, thereby losing its capacity for bearing fruit, and becoming but a leaf-branch. By resorting to this method of method of checking the strong-growing shoots, the gardener and orchardist is enabled to exercise a complete control over the development of his tree; though it may be necessary to repeat the operation over and over again. Under this treatment, the fruit-branches are greatly favored and strengthened, and even new ones are developed, which, without this attention on the part of the gardener, would have become but useless leaf-branches. During these operations in summer every haphazard water-shoot, frequently sprouting on trees, should be removed; in general, only a proportioned number of shoots is to be preserved; all those which would tend to create excess should be taken off altogether. In this manner the sap and strength of the tree will be employed in the production of useful and valuable parts, securing abundant crops, and well proportioned, healthy trees.

It is in the Nursery that the beginning should be made to form the pyramidal tree. When the bud has grown to the height of fifteen or eighteen inches, it should be checked by pruning off the extremity. This check will cause the growth of smaller lateral shoots, each having a new and well proportioned leader. These lateral shoots thus developed, are well fitted to become the leading lateral branches. Care must be taken, however, to prevent them from becoming rivals of the upward leader. By this treatment the tree is really advanced for one year, inasmuch as the sap of the first year is turned at once to the best account in the production of branches, instead of cutting off the redundant growth as a useless switch, as is usually done, when the tree is transplanted.

For hedge-growing it is quite reasonable, also, to turn the vigor of vegetation, by repeated summer prunings, into the production of dense brush-wood to form the base of the hedge, instead of throwing it in the fire of the brush heap the following spring; or of raising hedges, as too many are, which are dense enough *eight feet above the ground*, but open at the bottom, where the greater density is needed.

This subject of summer pruning is of great practical importance, and deserves a more extended exposition than we can now give it. And we feel assured that the horticulturist would find greater satisfaction and more enjoyment, to say nothing of profit, in the culture of his favorite orchard, when conducted with such considerate precautions and watchfulness over his trees as the philosophy of this subject suggests.—*Cincinnati*.

**TO DESTROY FLIES.**—To one pint of milk add a quarter of a pound of raw sugar, and two ounces of ground pepper; simmer them together for eight or ten minutes, and place it about in shallow dishes. The flies attack it greedily, and in a few moments are suffocated. By this method, kitchens, &c., may be kept clear of flies all summer, without the danger attending poison.

## SUBSOIL GARDENING.

*"Always do your best and leave the rest."*

SOME people are afraid to look below the surface soil, apparently regarding it as a sacred spot that must not be disturbed or intruded upon. Now the fact is, too many of us have been looking at the surface of things instead of penetrating into the subsoil below and examining its texture, to see if a mine of wealth be not there secreted.

The period has arrived when gardening must commence, and those whose garden plots are underlaid with a stiff, tenacious subsoil, would do well by considering whether some measure might not be taken with it that would render it more certainly productive. It has been demonstrated beyond cavil, that when a tenacious subsoil is dug and loosened up, without bringing it to the surface, or mixing it with the vegetable mould of the surface soil: if the season is very wet, the water descends into it readily, and the plants are protected from the injury of their food being too much diluted with water; and if a drouth comes on, the roots penetrate deeper and are benefited by the reservoir of moisture which lies below, and the capillary attraction in the earth brings the moisture upwards to the surface, and feeds and refreshes the vegetables. Any way you may fix it, it does much good, like all those good honest old rules, that work well either end foremost.

The way to work it is to dig a little gutter a spit deep and the width of the spade on the side of a bed, and throw the surface earth which comes out of it to the other end of the bed which is to be dug, where it will be required for the purpose of filling the trench which will be left at the conclusion of the work. Then begin at one end of this gutter and dig it up, and turn it over in the bottom, from end to end; when this is done, begin and dig in the usual way, turning down the surface soil on the subsoil which has been dug; doing this from end to end properly will leave another gutter which dig and overturn as before; and so proceed till the bed is all dug two spits deep; the subsoil being turned topsey-turvy, but none of it being brought up or mixed with the surface mould.

Trenching differs from this in turning the whole over, and bringing the subsoil to the surface; but that would be inexpedient when the vegetable mould was not at least two spits deep, unless the ground should be very heavily manured.

Now what is the objection to putting a garden through this salutary process? None at all excepting that it will require twice the amount of labor; and this may appear to some a serious objection, but its adoption once in four or five years may be sufficient, unless the soil is very stiff and intractable; and it enables the gardener gradually every year, to extend his diggings a little deeper into the subsoil, and by bringing up to the surface a small portion of it annually, the surface soil is constantly gaining depth, which is a matter of prime importance in obtaining good crops with much greater certainty.

Should it be too serious an undertaking to overturn a whole garden in this way in one season, try a single bed this spring, and become convinced of the importance of doing everything you undertake in the way you are capable of; and then resolve never again to do anything *well enough*, which means, in common parlance, just as bad as will in any way answer the purpose for the time being.

The foregoing plan has no novelty in it, for it has been often done, with the greatest advantages resulting from it. There is no untrod theory about it that it need scare the most timid, and the writer does not expect to gain anything further by the suggestion, than the pleasure of seeing many more good gardens, stocked with delicious, flourishing vegetables, than he has in times passed witnessed.—*Southern Agriculturist*



## GRAPES, WINE—PRESERVED FRUIT, &amp;c.

AN experienced correspondent, of Alabama, gives us the following suggestive hints.—We are obliged, however, to dissent from his estimate of the respective merits of the Catawba and Scuppernong, deeming the latter of little value for wine, and preferring the "Dry" or "Still" Catawba, of BUCHANAN and LONGWORTH, *without sugar*:

If you are planting a vineyard for wine be sure to get the "*Blue Favorite*." It makes a richer wine than the Catawba. The Devereaux is far superior to the Warren, though probably a seedling from the latter. The Scuppernong is the most profitable, because while other grapes are about as subject as Peaches to casualties, this is a never-failing crop. It does not make good wine with sugar but with alcohol will make good wine in two years from the vintage. The Catawba is best with sugar, and is three years getting mellow. I believe ladies uniformly prefer the Scuppernong wine to any other.

Strawberries mixed with as much sugar as is intended for cream, and sealed up in glass, will, in six months, make a most delicious wine. The berries will still be nice with cream. They will become soft, but will taste like fresh strawberries and cream seasoned with wine. Strawberries will not keep in tin, neither will Plums.

J. L. M.

## PEARS ON THE QUINCE STOCK.

We take the following from an article of our friend, L. E. BERCKMANS, Esq., who has spent a long life in the study of Pomology, and his opinions are, therefore, worthy of confidence. To the question, "*Will Quince-grafted Pears succeed?*" he replies:

I have no hesitation in replying, Yes, they will, and often better than on Pear stock; and they are less subject to blight. I know that I do not agree with the opinions of my late friends, Van Mons and Esperen, who never would admit a Quince stock in their experimental gardens. I respect their memory, but cannot help considering their opinions as a prejudice. They had not found out the good Quince stock, and perhaps did not know how to plant quince-grafted trees. I, myself, did not know then. At present, my best trees are on the Quince; and my best fruit also. Those who would successfully cultivate these must pay attention to the following rules:

1. Have a good, substantial, rather deep soil, with porous or drained subsoil.
2. Select the good Angers, or Orleans Quince, for stock.
3. Plant no other varieties than those which succeed on the Quince.
4. Plant the trees deep enough, so that the place where they have been budded shall be at least three inches below the surface of the soil.
5. Keep the weeds down.
6. Keep the branches low, and make a pyramidal tree, by judicious pruning once or twice a year. If well pruned, the tree requires no pinching.

Much has been said about the *short-living* of the Quince stock. If properly planted in genial soil, which is not exhausted or impoverished by intervening field crops without a reasonable supply of manure, as most of our apple orchards are, the Quince-grafted tree will thrive for some fifty years or more. Some actual facts will prove what I state. Hon. M. P. Wilder has in his garden at Dorchester, trees which he brought from Long Island some twenty years ago. They have yielded fine crops almost every year, and there is no reason to anticipate a diminution of growth or crops. These trees are on the Quince, but they have been planted by a man who knows how to manage trees.

In the same garden are some fine Urbaniste trees—a part on the Pear and a part on the Quince—planted in the same spot, in the same year. Those on Pear roots are now beginning to bear some spare fruits, while the others, on Quince, have yielded bushels of fruit for the last seven years, and are actually loaded with a splendid crop. All are equally healthy.

He who wants large crops of Pears, indifferent in size or quality, may plant all his trees on the Pear stock; but he has to wait from ten to fifteen years. If you want large fine fruit, which, in fact pays better, with less trouble and expense, select your varieties on the Quince. These will often bear the first year, and always, the third or fourth from their planting. If I had thirty trees to plant, twenty should be on the Quince, the balance on Pear stock.

Some varieties will not grow upon the Quince, but even these do well *double-worked*, that is, budded or grafted upon a variety worked already upon the Quince, and succeeding upon it. The French call it *intermediary grafting*.

In planting orchards, the same care and the same digging is required for a Standard as for a Quince stock, but how different the result? Ask Mr. Hovey, and others around Boston, from which they derive their largest profits. They all agree that the Quince root has paid the soil the expenses, tree and all, long before the *Pear stock* has shown any signs of bearing.

[We have also on file, for our June number, an excellent article on this subject, from an experienced Mississippi correspondent.—Ebs.]

## DESCRIPTION OF A NEW BAPTISIA, FOUND near Aiken, S. C., by H. W. Ravenel.

Read before the Elliot Society, of Natural History, January 18th, 1856.

I desire to make this Society the medium of publishing a new species of *Baptisia*, which I have discovered in the "Sand Hills," in the neighborhood of Aiken.

The honored Botanist, whose name this Society bears, aided by his numerous friends and correspondents, has scrutinized, with such diligence and ability, the floral regions of our State, that his "Sketch," which modestly claimed but a fragment of the harvest, has left for future reapers only scanty gleanings in the field of Phanogamous Botany. The "Sand Hill" region of our State, the Flora of which is well marked and characteristic, has furnished two species of *Baptisia*, which seem to have escaped his observation, viz: the subject of the present notice, whose characters are given below; and *Baptisia Serenoë*, Curtis found some five or six years ago in the Sand Hills, about Society Hill, and published by Dr. Curtis, in vol. vii. of "Silliman's Journal," for 1849, p. 406, and which I have also found here. These two, and *B. perfoliata*, R. Br., appear to be confined to the "Sand Hills."

The two former are rather rare, (of *Baptisia Serenoë*, I have found but two specimens) but the latter is very common here; and with *Ceratiola Ericoides* and *Eriogonum tomentosum*, is a peculiar characteristic of this region.

In addition to these three, just named, I find *Baptisia tinctoria*, R. Br., *B. alba*, R. Br., and *B. leucophæa*, Nutt. These three last have a wider range.

## BAPTISIA STIPULACEA.

*Species nova* glabra; caule ramosissimo, ramisque patentibus. Foliis trifoliatis, petiolatis, foliolis subrotundo-obovatis, basi cuneatis, petiolum excedentibus. Stipulis foliaceis, auriculato-cordatis obtusis, subamplexicaulis, persistentibus, petiolo longioribus. Racemis terminalibus, laxifloris, declinatis. Leguminibus inflatis, subrotundis, pedicellatis.

Stem two to three feet high, diffusely branched, glab-

rous. Leaflets roundish-obovate, strongly reticulated on the under side, glabrous on both surfaces. Stipules large, roundish and unequally cordate at base, sessile and embracing the stem, persistent. Flowers, yellow, pedicellate, axillary and forming short racemes at the extremities of the branches (like those of *B. tinctoria*), the upper leaves sometimes becoming unifoliate and bract-like. Teeth of the calyx short, triangular. Legumes short, inflated, on pedicel half inch long, pointed with the long recurved and arched style. Plant not blackening in drying. Flowers in June and July. Root perennial.

### THE HOMESTEAD.

It is not as it used to be,  
When you and I were young;  
When round each elm and maple tree  
The honeysuckles clung;  
But still I love the cottage where  
I passed my early years,  
Though not a single fence is there  
That memory endears.

It is not now as it used to be,  
The moss is on the roof,  
And from their nests beneath the eaves,  
The swallows keep aloof.  
The robins how they used to sing  
When you and I were young.  
And how did fit the wild bee's wing  
The opening flowers among!

It is not as it used to be!  
The voices loved of yore,  
And the forms we were wont to see,  
We see and hear no more.  
No more! Alas, we look in vain,  
For those to whom we clung,  
And love as we can love but once,  
When you and I were young.

### SALARÆTUS A POISON.

EDITORS SOUTHERN CULTIVATOR—I have noticed in the *Cultivator* for June, 1856, a paragraph in which it is stated that Mr. George Sumner, "in a recent lecture," spoke of the excessive use of salarætus as a cardinal cause of our prevalent American ill-health, and denounced it as a deadly poison, &c. I have, before, expressed my views on this subject, in the columns of the *Cultivator*, and endeavored to point out some of the ill effects of the immoderate and long-continued use of alkaline compounds. Still the question is asked: "Is salarætus a poison?" Most assuredly it is; so is soda. Scientific writers, in their classifications of poisons, invariably include these and other kindred substances, along with arsenic, antimony, &c., in the list of "irritating and corroding poisons." And this is exactly what they are: irritating and corroding poisons. And there are numerous painful examples of their blighting effects upon human life and health everywhere to be met with. The excessive use of these noxious compounds in modern cookery is, without a single doubt, the prime cause of most of those distressing stomach disorders which afflict our race at the present day. Compare the present generation with the preceding one. Thirty years ago Dyspepsia was as little known among our hardy, robust population as the alkalis were among our cooks; and it is, no doubt, within the recollection of many that the introduction of these poisonous compounds into our kitchens, was speedily followed by a marked increase of this fearful disorder, whose victims continued to multiply from day to day with frightful rapidity; so that in a few years the disease had become so common that it received the distinctive title of "*the fashionable complaint*."

And where, now, are the hardy, robust men and women of these days? They will not be found, I apprehend, among the rising generation, raised on hot soda cakes and all manner of "sweet fixins." Look at our youth; pale, sickly, indolent, irresolute; without the powers of endurance; incapable of exertion, either bodily or mental. And the sprightly, buxom maiden—with "rosy cheek and faultless form"—the perfection of all female beauty and loveliness—alas! she, too, has been strangely transformed! Like the doomed flower just opening to the light, while bathed in the refreshing balmy dew, she may appear lovely—even charming for awhile—yet premature decay is plainly written upon her pallid countenance. She is the flower of a day. Alas! how soon she fades. Now pale and attenuated; feeble, lifeless, toothless, timid; screams at a butterfly, swoons at a caterpillar; ever ailing, fragile as the flower. And these are the things that are to become the mothers of the next generation! O mothers of our Revolutionary Heroes!—O America!—but I forbear.

Most heartily do I join Mr. Sumner in the unqualified condemnation of a practice, not only extremely silly in itself, but fraught with the most disastrous consequences to the life, health and happiness of the human family.

Toxopola, Miss., March, 1857.

### "THUMPS IN HOGS"—A CURE.

EDITORS SOUTHERN CULTIVATOR—Enclosed I send you a recipe (for publication if you deem it necessary) for the cure of "thumps" in hogs. I do not recollect of ever seeing it in print; and as it is an effectual remedy I think every person who raises hogs should know it. One of my neighbors gave it to me, I to you, and you to the public. It has relieved every one that it has been given to in time, in this vicinity. My reasons for sending it to you are these: I hear a great complaint about this disease in the southern portion of the State; some have lost over a hundred head and are still dying, and something to relieve them, of course, would be an advantage to them, and the recipe will actually cure in every instance where it is applied in time. Here it is:

1st. Burn all the old beds and around the feeding place for several hundred yards.

2d. Give to each hog, as soon as it is discovered to have the thumps, one tablespoonful of Spirits of Turpentine every other day for a week. This is a sure cure if applied in time.

Glasgow, Ga., 1857.

### ROTATION OF CROPS—FATTENING HOGS, &c.

EDITORS SOUTHERN CULTIVATOR—It was not my intention to trouble you with a communication so soon, but seeing my last article noticed by a brother planter in your March number, complimenting me, in part, and at the same time, making inquiry whether or not I advocated rotation of crops, I have concluded, therefore, to give you a short communication, explaining my views on that subject.

In answer to my friend, Mr. G. D. Harmon, of Mississippi, I must say, that rotation in Corn and Cotton will wear out land. Corn, cotton, and small grain, alternately, will about keep it on a stand, provided the pasture, the third year, is not eaten out too clean, but cultivating one year and sowing down or resting the next, will improve land, provided it is level. This is my experience. But whether or not we would give in to Mr. Harmon's notion of manuring and improving an old place in preference to settling a new one as being the most profitable, I must say it will soon become a matter of necessity and not of choice, as I consider the bounds of slave territory now fixed, should we not obtain Kansas. Therefore, neces-

sity will force us to improve what we have, or our lands and negroes must perish together. I, therefore, consider every spadeful of manure as adding something to the independence of the South; and, of course, I advocate level culture, hill-side ditching, rotation in crops, manuring, and everything else calculated to improve our soil; and could we make it a Belgium in one year it would place our institutions on a much firmer basis.

Before closing this communication, I must notice a remark made by "A. R.," of LaGrange, Ala., in your February number, who also alludes to my article in your December number, about fattening hogs on peas. He believes, with many others, that hogs should be taken from a pea-field two weeks before slaughtering and fed on corn, to harden fat. He, in this, is advocating a doctrine not founded on practical experience. The fat formed by corn, peas, acorns, or any other food, unless it is mixed, will appear as obvious to the discerning eye as the layers of alluvial soil on the banks of the Mississippi River. Corn fat is white and firm, pea fat a light flesh color, and that made from acorns is a very light yellow and oily, which is never mixed until rendered up. I hope, therefore, to put this hardening of fat to rest, as I think I am sustained by all experienced pork raisers. I have fattened pork frequently on corn and peas and discover but little difference as to dripping in the summer.

I never keep my stock hogs out of my pea-field if I have enough for all; it is well, however, to feed and salt them pretty well after taking them out, until you get them back into industrious habits; they not being fed well after taking them out is the cause of their dwindling off and not doing well. Raise a child in idleness, with plenty, and put him on his own resources, without aid, and he will go the same way. E. JINKINS.

*Horse Pen, Miss., March, 1857.*

#### CHINA TREE BERRIES POISONOUS.

EDITORS SOUTHERN CULTIVATOR.—In answer to the queries of M. T. McGehee, with regard to the China Berry, I would state that I have some little experience, as there are some very fine looking trees about my yard, which never fails to bear large crops of berries. They have killed some fine pigs for me. They will keep perfectly fat on them and die at last. I do not know that they will kill old hogs, for my sows ate berries with the pigs and was not hurt. The robins crowded on my trees last spring in gangs, and we could find them sitting about in every department of the yard, apparently drunk, and could not get out of the way. To satisfy myself whether they would die or not, I brought one into the house and it died in a few hours.

I have often heard that a decoction of the bark was an excellent vermifuge for children, and accordingly I requested my wife to give some to our son; she did so, and in less than three hours his eyes were swollen very much and the water streamed down his cheeks in abundance. For further information I would refer the reader to Ewel's Medical Companion, under the head, "Pride of India, or China."

I verily believe that they will kill anything that will use them as their entire food, and would advise Mr. McGehee to abandon the idea of planting an orchard of them, and plant the same ground in Chinese Sugar Cane.

J. C. WYLIE.

*Marshall, Texas, March, 1857.*

N. B.—If you know of any cure for Blind Staggers in Horses, please publish it in the *Cultivator*. This county is very subject to this disease.

[See back numbers of the *Cultivator* for various remedies for Blind Staggers, and other diseases of horses.—Eds.]

#### VILLAGE ARISTOCRACY.

MANY are the follies and weaknesses of human nature; but none are more contemptible than those acted out by the *scrub aristocrats* of our towns and villages. These are to be found in all the relations of life. A young man whose father was a hard working mechanic, either has a moderate fortune left him, or he marries a few thousand dollars, and forthwith puts on airs, perfectly disgusting to all who are acquainted with his "rise and progress" in the world. Such young men regard as beneath their dignity, the vocation of their parents, and not unfrequently avoid letting it be known that they spring from such sources. We have even met with some who looked upon the vocation of an humble mechanic as beneath the dignity of a gentleman, forgetting, meanwhile, that the taint of the father attaches to the son! Pride of this kind never finds a resting place save in a weak brain, and manifests itself in a perverse temper.

There are many young men in our towns and villages (and some young ladies, too!) who seem to be proud of the wealth of their parents—while their own reputations would be soiled by associating with the sons of mechanics. In their strange infatuation, it never occurs to them that their fathers made all their property by downright stealing, cheating, and lying—while their grand-fathers were sold at public auction, in our seaports, to pay their passage across the ocean! See the number of young men in our country, who, endowed with scarcely common-sense, and no sort of love for genuine republicanism, resort to the study of learned professions, such as law and medicine, while every mark about them declares, in terms which cannot be misunderstood, that the God of Nature intended them for brick-layers, house-carpenters and black-smiths. Many of these ought now to abandon their professions for the more profitable and equally honorable fields of labor, where their fathers made money enough to educate them, and thus elevate them to stations in which they never can move with ease and grace. God deliver us from the *bastard* aristocracy of our little villages, and *cod-fish* aristocracy of our larger towns! Among these hateful *funguses* of society, respectability is based upon the nature of a man's vocation, instead of the manner in which his duties are performed. The only sentiment which well regulated society recognizes, is in that sound maxim—"Act well thy part—there all the honor lies."—*Exchange paper*:

#### THE COTTON PLANT AND THE OLIVE Branch.

THE olive branch as an emblem of peace, has parted with its significance in the amity existing between the American eagle and the British lion. The classicality of its deep green spray and bright berries has lost all its appropriateness, since the sturdy spokesmen of the deputation of English husbandmen, in addressing Mr. D'Israeli said, "Now doant let us have no war wi' Merica, Muster Duzerly." England had learned a lesson, had drunk an unpalatable draught just then, and found to her astonishment that though she might trample upon the long accepted emblem of concord, the olive branch, yet the cotton plant, the bread-giving, wealth-creating cotton plant, was not thus to be treated with indignity. It was no doubt a revolting mental dose this realization of her own dependence, and doubly so because it has, in a measure, placed her in a false attitude before the world. For the press of France insists that England quails before the power of the United States, and that we have placed upon her a most grievous insult. To view the matter in this light is not generous, nay, more, it is unjust. England has not been brow-beaten, but has merely attended to the admonitions of sound sense. The English may be a nation of utilitari-

ans, but that they are not cowards, no people have better reasons to know than their Gallic neighbors. That a war has not followed upon the heels of Mr. Crampton's dismissal is not to be charged to any decay of British pluck, but to the fact that the cotton plant has superseded the olive branch as an emblem of Anglo-American harmony. It is not the lives, or the ships, or the money a war would involve, but losses of a far different character, which deterred Palmerston from coming into a collision with this country. It was the fear that a set-to with the Model Republic would silence the mules and jennies of his factories, and hush the anvil ring, and dismount the trip-hammers of his workshops, that caused him to repress his ire, and to pocket that which, under any different state of things, he would construe into an insult, and which, if given by any other nation, would be the tocsin of immediate war.

All glory, therefore, to the Cotton Plant! As a preservative of a good understanding and a provocative of courtesy between Great Britain and ourselves, it is worth all war ships and Minnie rifles that were ever constructed. For many years past, England has been trying to work out her independence of us, and her statesmen have left no means untried to produce a staple in her colonial possessions. She has tried it faithfully in India, but without success. India cotton is superlatively fine and beautiful, but for her purposes the merits of the article must be in the positive degree. India cotton makes splendid mulls and lawns, such as a bishop might wear or a bride adorn herself with. We have seen it of such fineness that its entire width could be drawn unrumpled through a finger ring.

But of what use is Bishop's lawn, nainsook, or India cambric, for the clothing of her peasantry and her soldiery? None; she must have American cotton for these purposes, and none other can be an adequate substitute. The Indian article is what the Frenchman terms, "*von magnifique, von sublime humbug!*"

We do not feel disposed to regret that this is so. In fact, we rather rejoice at it. The great wall which fences off British aggression from this country, unlike that which protects the lazy celestials from the encroachments of the Tartars, is made of cotton, and for the peace and security of the world, it may be considered absolutely indispensable that the mammoth manufactories of Britain should place their sole dependence for material upon the good faith of this great and glorious Union. It is a little remarkable that our cotton defended us at New Orleans in 1812, against British bullets and bayonets, and that it has proved our best safeguard against war with England in 1856.—*Phila. Eve Jour.*

#### ONE PENNY'S WORTH OF OIL.

A very sensible article in your paper some time since, from the *Builder*, on this subject, so perfectly met my views and habits for many years past; that I cannot resist the temptation to commend and enforce the idea, together with my own experience, to your readers.

How many things about the house and farm, are worn and often ruined for the want of one minute's care and a little dab of oil. Every lock that squeals, give the blade of the key a touch of oil. Every catch that jams on the latch needs a drop. The hinges of the doors require it and the coffee-mill, and the pocket-knife—the tongs, shears and scissors, and every implement needs this lubricating agent, where metal has friction on metal. Padlocks exposed to the weather should have a good *cathartic* dose.

You will not be the loser, by touching your boots on the side where the little toe comes in contact with the leather; as there is the spring and bend of the foot in walking, and where the boots fails first and should

be kept soft and supple. A dollar saved is two earned. How often have I seen a whole family, jamming and kicking at a door for months together to make it shut and latch; when two grains of any kind of grease, would make it slip like sleighing.

The complicated machinery of our brief existence will not be the worse, by the application of a little of the *oil of human kindness*. It works marvelously on a bad temper—makes the world jog easier and keeps down wrinkles and hard words and worse feelings. An *oily* word which does not even cost *one penny*; sometimes saves hard knocks and lawyers fees—broom-sticks and black eyes. Soft words put away anger, says the prophet. How true! It is the real oleagenous panacea of life, for half the ills that flesh is heir to. Make a note of this for constant reference.—*Rural New Yorker.*

#### ASTONISHING EFFECTS OF GUANO.

ALTHOUGH some people may be inclined to doubt the truth of the following yarn, we can bring forward any quantity of vouchers. An old salt of our acquaintance, says that when he was in the guano trade he sailed as mate of an old brig which might have been a tender to Noah's ark. On a return trip with a load of guano, the hatches were left open one night and a tremendous shower wet the guano in the hold, and produced the most surprising effects. The timbers of the vessel sprouted and grew in all directions. Between decks was a complete bowery. The forecabin became an almost impenetrable thicket, and the cabin a beautiful arbor. The rudder post being made of white oak, grew up into a "live oak" tree, which afforded a grateful shade to the man at the helm, though he was sometimes annoyed by the acorns rattling upon his tarpaulin hat. The masts became very imposing with their evergreen foliage, and strange to relate, the foretopmast, which had been carried away in gale, grew out again, and the altitude of all the masts was so much increased as to render the brig exceedingly crank. The vessel had boughs on her stern and the figure head (speaking figuratively) was as full of boughs as a dancing master. They were obliged to prune the bowsprit and some of the spars twice a week. The quarter deck, was covered with shrubbery, and the cook's caboose resembled a rustic summer-house. Crab apples grew on the pump handle, and a cherry table in the cabin bore fruit. Perhaps the most remarkable circumstance occasioned by the stimulating and fertilizing influences of the guano was that cockroaches on board became so large that they could get up sail on the brig. One of the owners of the craft facetiously remarked that she went out a full-rigged brig and came back home half bark. There is nothing like guano to make things grow, and for strict truth and veracity give us an old sailor when he lays himself out on a big yarn.—*Boston Herald.*

ICING FOR CAKE.—Two pounds double refined sugar, one spoonful of fine starch, one pennyworth of gum arabic in powder, five eggs, one spoonful of rose-water, the juice of one lemon. Make the sugar fine, and sift it through a hair sieve, rub the starch fine, sift, the gum arabic sift also; beat or stir all well together. Take the whites of the eggs, whisk them well, put one spoonful of rose water, one spoonful of the juice of lemon, beat well together; then put to the sugar by degrees, till you wet it, then beat it until the cake is baked; lay it on with a knife, and the ornaments, if you have any; and if it does not harden sufficiently from the warmth of the cake, return it to the oven. Be careful not to discolor.

## Advertisements.

SCOTT'S LITTLE GIANT CORN AND COB  
Mill, Improved.

(PATENTED MAY 16, 1854)

Manufactured of the best materials by SCOTT, MOCK-  
BEE & Co., under the immediate supervision  
of the Patentee:

**CARMICHAEL & BEAN, GENERAL  
AGENTS, AUGUSTA, Ga.**

THE attention of Planters and Stock Feeders is respectfully  
called to this MILL, as combining in a remarkable degree,  
portability and power, simplicity of construction and arrangement,  
durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being  
only necessary to fasten them down to a floor or platform, and for  
this purpose the requisite screws and a printed card of directions  
will accompany each mill.

It has been proved by actual experiment, that Stock fed on  
Corn and Cob Meal, are capable of doing more work, and are less  
liable to injury from being over-heated, over-feeding and drinking,  
and will always keep in better condition than when fed on Corn  
alone; and in addition to this, it is conceded by all who have made  
the trial, that a saving of at least one-fourth is made by feeding  
Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium  
wherever exhibited; and we challenge the patentees, manufac-  
turers and agents of all other mills, to produce PROOFS of its ever  
having been equalled at any trial conducted by disinterested per-  
sons and on fair terms. It is the product of genius, experience  
and perseverance, and such has been its success, and such the  
celebrity which it has gained during the two years of its existence,  
that several imitations and counterfeits have recently made their  
appearance with the vain hope that by assuming high-sounding  
names and stealing some of the Little Giant's thunder, they may  
be able to follow in its footsteps and share its fame. These mills  
are guaranteed against defects or breakage, when used according  
to the directions, and as evidence of their durability, a No. 2 Mill,  
which has ground nine thousand bushels, and a No. 3 Mill, which  
has ground fifteen thousand bushels, are still doing good service.  
The smallest size, No. 1, will grind five bushels per hour with a  
small horse, and is offered at the low price of \$35, all complete,  
and ready for attaching the horse. No. 2 will grind from eight to  
ten bushels per hour with one horse, and is sold at \$50. No. 3 re-  
quires two horses, will grind fifteen bushels per hour, and sells  
for \$60.

We append a few of the many certificates which we have re-  
ceived, and we have in our possession official written and printed  
testimonials which we will gladly exhibit to persons wanting  
mills, showing and proving the superiority of the Little Giant  
over all others:

## TESTIMONIALS.

AUGUSTA, GA., April 3, 1855.

I have been running one of SCOTT'S LITTLE GIANT CORN  
AND COB MILLS. No. 4, for the last five weeks, and it per-  
forms to my entire satisfaction. It was warranted to grind twenty  
bushels per hour. But I have ground over thirty-five bushels in an  
hour and a half, or equal to twenty-three and a half bushels per  
hour. In feeding thirty horses, I save at least one hundred bushels  
of Corn per month, it now requiring only two hundred bushels of  
Corn with the Cob, where I formerly fed three hundred. I con-  
sider it decidedly the best kind of crusher ever got up and if I  
could not replace mine, I would not sell it for five hundred dollars.  
I. D. MATHEWS.

Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20, 1857.

Messrs. CARMICHAEL & BEAN—Gent.—After having used the  
LITTLE GIANT constantly for two years, I cheerfully confirm  
every statement made in my certificate of the 3d of April 1855.

D. MATHEWS.

BRECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta, Ga.—Gent.—I have  
had a No. 3 LITTLE GIANT in constant use for the last two  
years, and have fed my stock entirely on Corn and Cob Meal. I  
have never worked my horses and mules harder than during this  
time, and they have never been in better condition than they are  
now. Two horses will grind fifteen bushels per hour easily, and  
I feel confident that I save fully 30 per cent. by using the mill.—  
I am acquainted with several kinds of crushers, but consider the  
LITTLE GIANT far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gent.—We are using the  
LITTLE GIANT CORN AND COB MILLS, which we bought  
from you, and hereby recommend them to Planters and Stock  
Feeders as the most simple and durable, the most easily propelled  
and best crushers we have ever seen, and by the use of which we  
believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr. Crawford has two mills in use.)

A. J. RAMBO, Edgefield district, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTZ, P. Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EYE, Richmond county, Ga.

GOODE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

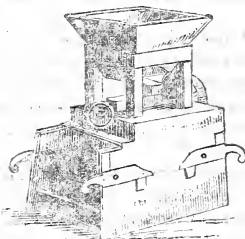
HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

PORTER FLEMING, Augusta, Ga.

JAMES TORREY, Lexington, Miss.

May 57—td

FELTON'S SELF-SHARPENING  
PORTABLE GRIST MILL,  
PATENTED JANUARY 2, 1855.

**FELTON'S  
PATENT  
PORTABLE GRIST MILL.**  
TRADE, & C.

FOR Grinding all kinds of Grain, including Corn and Cob; and  
adapted to the Use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possess-  
ing all the qualifications requisite to make it available to the  
Planter, it is destined to supply a want that has long been felt by  
that portion of the community. It occupies a space of only two  
feet by three, and weighs about 200 lbs. It is very simple in con-  
struction,—the grinding surfaces are of the most durable character  
and are Self-Sharpening, requiring no skill to keep in order, and  
should they wear out, can be replaced at a trifling cost,  
—and the price comes within the reach of every Planter and  
Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is  
capable of grinding three bushels per hour with one-horse power,  
and from six to eight bushels with two horse power; it grinds suf-  
ficiently fine for family use, and does not heat the meal—a most  
valuable feature.

The perfecting of this mill is the result of a long series of ex-  
periments which have been attended with great expense, but  
the success of the enterprise is most complete. Numerous testi-  
monials in its favor have been received, and will be cheerfully  
exhibited to all.

All orders for Mills, Communications, &c., will be promptly  
attended to, and should be addressed to the Agent,

D. CHAFFEE,

May 57td

Augusta, Ga.

## SUGAR CANE SEED.

HAVING purchased from Mr. WRAY, his importation of CHA-  
NESE IMPHREE or SORGHO SEED, grown in France,  
under his own immediate inspection (thereby insuring the utmost  
purity), and described editorially by Mr. Greeley in "The Tri-  
bune," we offer it for sale in quantities, at ONE DOLLAR A POUND,  
and in packets, pre-paid by mail, at 25 cents, 50 cents and \$1 each.  
This seed, so superior to any other in market, can be procured  
only from J. M. THORBURN & CO.,

May 57td and Seed sold 145 John Street, New York



## CHINESE SUGAR CANE, OR SORGHO

Sucre!!!—Pure Seed!!!

**T**HIS subscribers take great pleasure in informing the Planters, Farmers and Gardeners of the South, that they have secured from the most reliable sources a limited supply of FRESH SEED, of this very valuable plant, the properties of which may be briefly summed up as follows:—

1st. One acre of the stalks, properly cultivated, will yield from 400 to 500 gallons of fine syrup, equal to the best New Orleans; and from the same roots, a second crop of excellent fodder.

2d. Sown broadcast or in close drills, on land deeply plowed and highly manured, it will yield from thirty to fifty thousand pounds of superior fodder to the acre.

3d. It surpasses all other plants for soiling (feeding green) and fodder, on account of the great abundance of sugary juice which it contains; and is greedily eaten by stock of all kinds.

4th. It bears repeated cuttings, like Egyptian Millet, growing off freely and rapidly, after each cutting.

5th. It stands drouth much better than common corn, retaining its green color and juiciness even after the seed matures.

6th. The seed is excellent for human food, when ground into meal, and fattens domestic animals very speedily. From twenty-five to seventy-five bushels can be raised on an acre.

7th. It is so certain and prolific a crop that planters may be sure of succeeding with it as a Sugar plant anywhere South of Maryland and North of Mexico. If planted early in the Southern States the seed will mature and produce another crop the same season.

The seed, which has been very carefully kept pure, from the original importation, will be offered in cloth packages, each containing enough to plant half an acre, in drills, with full direction for the cultivation, which is perfectly simple.

These packages will be forwarded per mail, FREE OF POSTAGE, to any address, on receipt of \$1.30 for each package. When not sent by mail, we will furnish the packages at \$1 each.

May 57—**PLUMB & LEITNER, Augusta, Ga.**

**FRUIT AND ORNAMENTAL TREES,** including EVERGREENS, the finest collection in the Union, 1,700 lbs. Chinese Sugar Cane, and also parcels of 8000 Seeds, post-paid, for \$1.25. Chinese Imperial Rice White Potatoes; the most valuable of Esculents—the only ones for sale of American growth, at \$3 per dozen—\$5 per 20—\$20 per 100. Osier Willows—\$100 in 200—\$2 to \$5 per 1000. Lawson Blackberry \$18 per 100—\$2 per doz. Grapes, Gooseberries, Raspberries and Currants at lowest rates. Linnaea and Victoria Rhubarb \$9 per 100. Arbor Vitae, small for Hedges, and large sizes. All Evergreens of small sizes for Nurseries. All the new native Grapes. Tree and Shrub, Vegetable, Flower and Evergreen Tree Seeds, Earth Almonds, Yellow and Holly, Locust and Osage Orange Seeds, Strawberries—20 splendid market varieties—\$1 to \$2 per 100.

Priced Catalogues of every Department sent to applicants who enclose stamps. **W. R. PRINCE & CO.** Flushing, N. Y. May 57th

## NATIONAL AGRICULTURAL AND SEED Warehouse.

**N**O. 251 Pearl street (between Fulton and John streets), New York.

**TREBIVELL & JONES,** Manufacturers, Importers and Dealers in all kinds of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and MACHINERY for Plantations; invite the attention of Dealers and Planters to their large assortment of implements expressly adapted for the South—comprising upwards of ONE HUNDRED and FIFTY different styles of PLOUGHS and Rough Castings, and patterns for Casting all kinds of Plantation Machinery.

**FERTILISERS, FIELD and GARDEN SEEDS.** Any Implements, Castings or Machinery manufactured to order, on short notice, in a superior manner. May 57—**tf**

## THOROUGH-BRED NORTH DEVON CATTLE At Public Auction.

**T**HE subscriber intends holding his first Public Sale of NORTH DEVON CATTLE, on Wednesday, the 17th Day of June, 1857, at his Residence, four miles North of the Rhinebeck Station, on the Hudson River Railroad. The animals to be sold will number between 20 and 25 head—males and females, from calves to full grown—all of which have been either bred or imported by him &c, and have perfect Herd Book pedigrees. As a lot, he believes he may say with truth, they are fully equal to any ever yet offered to the farmers of the United States. Amongst the number will be the imported Bull MAY DOY (71), and the imported Cows, NONPARVILLE (924) and MOSS DOSEY (904); also, a number of very superior Calves of an age suitable to be removed South the coming autumn.

Catalogues, containing full pedigree and all necessary information, are now ready, and will be sent to all desiring them—Arrangements may be made by which animals for the South will be kept until autumn. **B. P. JOHNSON, Esq.,** Secretary New York State Agricultural Society, Albany, and **Sandford Howard, Esq.,** of the Boston Cultivator, Mass. have kindly consented to act as Agents in the purchase of animals for such persons as are unable to attend the sale themselves.

There will be no bidding in, but all the animals bid upon will be sold, and no animal on the catalogue will be disposed of, until the auctioneer's gavel is raised. **C. S. WAINWRIGHT,** The Meadows, near Rhinebeck, N. Y.

## NEW NORTHERN CHINESE SUGAR CANE Seed.

(Sorghum Saccharatum.)

**J**UST RECEIVED a large quantity, PURE and GENUINE, from the Original Source, and for sale at \$1 per lb., and in packets, pre-paid by mail, at 25 and 50 cents each. Two pounds are required to seed an acre. **J. M. THORBURN & CO.** 15 John street, New York.

Vegetable, Flower, Field, Fruit and Tree SEEDS, of the most approved sorts and best qualities, at wholesale or retail. May 57

## AGRICULTURAL SEEDS.

**T**HIS subscribers offer the following seasonable SEEDS, the growth of last year and of unsurpassed quality. Dealers and others requiring large quantities, will be served at prices considerably below the rates quoted.

Best quality Red Top TURNIP.....per lb. \$0 75  
Red Top Strap Leaf Turnip.....0 75  
Large White English Globe Turnip.....0 50  
Large White English Norfolk Turnip.....0 50  
Long White Tankard Turnip.....0 75  
Yellow Stone Turnip.....0 75  
Yellow Aberdeen Turnip.....0 75  
Best American Improved Ruta Baga Turnip.....0 75  
Imported Improved Ruta Baga Turnip.....0 50  
Imported Purple Top Ruta Baga Turnip.....0 50  
And 12 other fine varieties of Turnips, from 50c. to.....0 75  
Early Scarlet Horn CARROT.....1 00  
Improved Long Orange Carrot.....1 00  
Long White Carrot.....0 75  
White Sugar BEET.....0 50  
Yellow Beet.....0 50  
Long Red Mangel Wurzel Beet.....0 50  
Fine mixed FRENCH GRASS Seed for Lawns.....per bush. 5 00  
And other Mixtures, or Lawns, at \$3 and.....4 00

Also, the finest qualities of Red, White Dutch, Lucerne and other Clovers; Timothy, Red Top Blue Grass; English and Italian Ray Grasses; Orchard; Sweet Scented Vernal; The Pines, and other Grasses, with a large and complete assortment of VEGETABLE, FLOWER and FIELD Seeds of the best qualities at reasonable rates.

**J. M. THORBURN & CO.**

15 John street, New York.

Catalogues on application.

May 57—**21**

## PLANTATION IN SOUTH-WESTERN Georgia For Sale.

**S**ITUATED on the east side of Flint River, 10 miles below Albany, the river forming the Western boundary, containing 1,346 acres (more or less) first quality PINE LAND. Between 500 and 600 acres are in cultivation, all of which is fresh, none of it having been cultivated more than 4 years. Thirty or forty acres will comprise all the waste land on the plantation. The improvements are a good Gin House, Overseer's House, C. B. Negro Houses, etc. The ill health of the proprietor is his reason for wishing to sell. Apply to **S. H. HARRIS, on the Plantation,** or **E. B. BALLOU, Quincy, Fla.**

Possession given 1st January next. Albany, Ga., March 27, 1857.

May 57—**4th**

## IMPORTED GARDEN SEED, FRESH.

**I**N anticipation of late Frost, I have ordered and received additional Supplies of all Varieties of FRESH GARDEN SEED, suitable for the present season.

Orders by mail, or otherwise, promptly attended to. **WM. HAINES,** August 8, Ga.

May 57—**tf**

## GEORGIA RAILROAD.



## CHANGE OF SCHEDULE.

## PASSENGER TRAINS.

**L**EAVE Augusta, daily at 6 A. M. and 5 P. M.  
Arrive at Augusta daily at 5 A. M. and at 6 P. M.  
Leave Atlanta daily at 8.50 A. M. and 6.15 P. M.  
Arrive at Atlanta daily at 2.50 A. M. and at 3.36 P. M.  
**CONNECTING WITH ATHENS BRANCH.**  
Arriving and leaving Union Point daily (Sundays excepted) at 10 A. M. and leaving at 2.30 P. M.

## WITH WASHINGTON BRANCH.

Arriving at Cumming daily (Sundays excepted) at 9 A. M.  
Leaving.....3.30 P. M.

## WITH SOUTH CAROLINA TRAINS.

Leaving Augusta daily at 9.20 A. M. and 9.50 P. M.  
Arriving at Augusta daily at 3 P. M. and 4.30 A. M.

## WITH ATLANTA AND LA GRANGE RAILROAD.

Leaving Atlanta daily at 3.30 A. M. and 4.45 P. M.  
Arriving at.....7.55 A. M. and 5.35 P. M.

## WITH WESTERN AND ATLANTIC RAILROAD.

Leaving Atlanta daily at 9 A. M. and 6 P. M.  
Arriving at.....3 A. M. and 3 P. M.

**GEO. YONGE, General Superintendent.**

July 14th, 1855.

August 55—**tf**

## SHEEP FOR SALE.

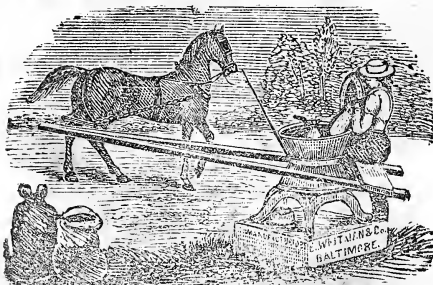
**O**NE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS, of the Webb stock.

June 56—**tf**

**RICHARD PETERS, Atlanta, Ga.**



## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:  
LEAVITT'S "YOUNG AMERICA," and  
MAYNOR'S "CHAMPION."

The Manufacturers of the "Young America" claim for this Mill: 1st. That it will crush Corn and Cob; also, grind fine Meal.

2nd. That the entire grinding surface can easily be replaced at a small cost.

3rd. That it has an extra set of fine and coarse plates.

4th. That it deposits meal in a box or bag.

5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.

6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding part lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf

H. & J. MOORE & CO.

### PLANTATION AND GARDEN Fertilizers.

THE Subscriber has constantly on hand the following concentrated MANURES, a single trial of which will prove to the most incredulous their value as a restorer of fertility to worn out soils and their adaptation to increasing largely the products of the Garden and the Orchard.

Numerous testimonials from gentleman who tried them last season have been received, all of whom concur in saying that their experiments were satisfactory and profitable beyond their anticipations:

PHOSPHATED GUANO.—In barrels of about 250 lbs., at 2 cents per lb.

SUPER PHOSPHATE OF LIME.—In barrels of about 250 lbs. at 2 cents per lb.

COARSE GROUND BONES.—In barrels about 175 lbs. at 1½ cents per lb.

FINE GROUND BONES.—In barrels of about 200 lbs., at 1½ cents per lb.

PERUVIAN GUANO.—In sacks of about 140 lbs., at 2½ cents per lb.

POUDRETTE, or de-odorized Night Soil, in powder \$1.75 per barrel.

LAND PLASTER.—At \$1.75 per barrel.

Also, ROCK SALT, in barrels of about 300 lbs. at 1 cent per lb.

Orders by mail or otherwise promptly attended to. A pamphlet, containing further particulars and directions for using the above fertilizers will be sent by mail, on the receipt of postage stamp, to any one desiring it.

August56—1y

98 Magazine st., New Orleans.

### LANDS IN SOUTH WESTERN GEORGIA For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany .y 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

Albany, Ga., Oct. 10th. 1856.

W. W. CHEEVER,

Nov56—tf

### GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address

May56—tf

WM. N. WHITE,  
Athens, Ga.

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, and all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

## PRICES.

2½ Horse Power.....	\$375
4 do. do. ....	500
6 do. do. ....	700
8 do. do. ....	900
10 do. do. ....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

D. C. LOWBER,

98 Magazine St., New Orleans.

Feb57—1y

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Sommerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska;" a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

JAMES R. FERGUSON,

Memphis, Tenn.

June56—tf

### "FRUITLAND NURSERY," AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing

D. REDMOND, Augusta, Ga.

Dec56—tf

## CHINESE SUGAR CANE.

JUST received direct from France, the genuine SEED OF SORGHO SUCRE, or CHINESE SUGAR CANE, for sale in quantity or small packets.

Our spring stock of SEED is very full, and of the most valuable varieties in cultivation.

Seed Catalogues, and Pamphlets, containing information in reference to the Chinese Sugar Cane, will be furnished on application, or forwarded to those who enclose us a postage stamp for each.

April57—2t

CURTIS & COBB, Seedsmen and Florists,

348 Washington st., Boston.

## AUGUSTA SEED STORE.

(Nearly opposite the United States and Globe Hotels.)

THE Subscriber has received and will continue to receive throughout the season, his stock of genuine and fresh GARDEN SEEDS—crop of 1865. The usual deductions made to country Merchants.

J. H. SERVICE,

GIANT ASPARAGUS ROOTS, White and Red ONION SETS, White and Red CLOVER, LUCERNE, BLUE GRASS, &c., &c.

Jad57—3t

## FLOWER SEEDS FOR THE SOUTH.

HAVING experienced the great difficulty in obtaining reliable Flower Seeds suitable to the South, I have raised a small quantity, which I am now offering to the public. I would particularly draw the attention of the Ladies to the unsurpassed collections of DOUBLE STOCK GILLIFLOWERS, TEN WEEKS STOCKS, CARNATIONS, GERMAN ASTERS, WALLFLOWER, HOLLYHOCKS, and many others:

AT TEN CENTS A PAPER.

Double Stock Gilliflowers,  
" Ten Weeks Stocks,  
" Imperial Stocks,  
" Autumnal Stock,  
" Carnations,  
" Wallflower,  
Dianthus imperialis plenissima,  
Rhodantha Mauglesii,  
Heliotropium peruvianum,  
Pharbitis limbata,  
Polygnum lenitifolium.

AT FIVE CENTS PER PAPER.

Adonis aestivalis,  
Ageratum coeruleum,  
Amaranthus tricolor,  
Althea rosea,  
" chinensis,  
Ammobium alatum,  
Antirrhinum majus,  
Aster chinensis,  
Calendula crista galli,  
Calliopis bicolor,  
Catananche bicolor,  
Cerosea cristata,  
Celosia indica,  
Centourea cyanus,

Delphinium Ajacis,  
Dianthus chinensis,  
Double Balsams,  
Elierysium lucidum,  
Papaver somniferum,  
" mackanthum.

Emilea flammea,  
Gomphrena globosa,  
Heris speciosa,  
Ipomea Quamoclit,  
Lovatera trimestris,  
" Murselli,

Phlox Drummondii,  
Portulacca Thellusoni,  
Poterium Long visorba,  
Reseda odorata,  
Salpiglossis variabilis,  
Scabiosa atropunpunea,  
Gilia tricolor,  
Senecia elegans,  
Tagetes erecta,  
" patula,  
Verbena Melindris,  
Viola odorata,  
Zinnia elegans,  
Xeranthemum annuum,  
Gnaphalium foetidum.

Orders, enclosing the money and a three cent postage stamp for every dollar worth of seed sent to PLUMB & LEITNER, Augusta, Ga., or to the subscriber, will meet with prompt attention.  
ROBERT NELSON.

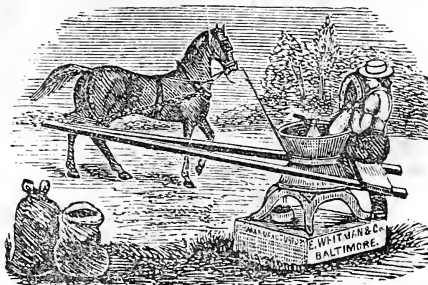
Feb57—tf

## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embraces the Deodar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vitæ; Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c., &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address [Dec56—tf] D. REDMOND, Augusta, Ga.

## YOUNG AMERICA CORN AND COB MILL.

The Cheapest and Best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

JOHN & THOS. A. BONES.

March—tf

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next.

RICHARD PETERS,

Dec56—tf

Atlanta, Ga.

## BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address Nov55—tf R. PETERS, Atlanta, Ga.

## CHINESE PROLIFIC PEA!

## THE GREAT FORAGE PLANT AND RENOVATOR OF SOUTHERN LANDS!!

THIS very remarkable new Field Pea is by far the most valuable and productive variety ever introduced. It is well adapted to poor land, yielding at least three or four times as much as any of the common varieties, and producing a growth of vine almost incredible. It grows in clusters of from 12 to 20 pods, each pod containing 10 to 12 peas, and is of course far more easily gathered than any other. The vine never becomes hard, but is soft and nutritious from the blossom to the root. It is greedily eaten by stock, and the Peas are unsurpassed for the table in delicacy and richness of flavor.

We subjoin the following extracts—the first from Ex Governor Drew, of Arkansas, and the remainder from several well known citizens of South Bend, in the same State:

FORT SMITH, Ark., December 20, 1856.

Dear Sir:—The evidences afforded me while at your house by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is beyond anything in the way of a great yield I have ever known.

I think I am within bounds when I say the yield, in pea and vine, is at least five times greater than any other pea—clover, or grass for hay. And the waste peas were equal to any other full pea crop; and from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr Wm. F. Douglass, has done well in making arrangements for the extended culture of this invaluable Pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands than guano or any other application to the soil, while, at the same time, the yields likely to be as great on such lands as on the rich bottoms of Arkansas.

Respectfully your obt. serv't.,

THOS. S. DREW.

To ROBERT H. DOUGLASS, Esq.

Dr. Goree, of Arkansas, estimated the yield in Peas or Hay at "five times that of any other Field Pea he had ever seen planted." W. R. Lee, Esq., says he "has never seen anything to equal it," and that it should "supersede the use of every other," and the following certificate settles the question of its value for Hay:

"We, the undersigned, saw 'that pea-vine,' and think, after the peas were gathered, that the vine would have made as much hay as a stout man could carry; it covered a space often or twelve feet in diameter, and lay from one foot to eighteen inches deep."

WM. C. MEENS,  
B. W. LEE.

South Bend, Ark., Sept., 1856.

Col. J. B. L. Marshall, Assistant Engineer on the Little Rock and Napoleon Rail Road, says:

"If the Southern Farmers will give it a fair trial, they will find it to be the greatest Pea both for table use and for feeding stock, now known. They fatten hogs faster than anything I have ever tried. On the 1½ acres Mr. Douglass had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of ground of the same size," &c., &c.

For further particulars, see Circulars furnished gratis by the Agents.

We are prepared to send out a limited quantity of these Peas, put up in cloth packages to go by mail. They will be forwarded, free of postage, to any address on receipt of \$1.30, or otherwise at \$1 each. Current funds and postage stamps will be a satisfactory remittance. Our names will be printed on all packages of the genuine seed.

Any one not perfectly satisfied with the Pea will have his money returned. Address (with plain directions for mailing) PLUMB & LEITNER, Augusta, Georgia. Febs7—tf

\* \* Dealers in Seeds and country merchants can be supplied, to a limited extent, at the usual discount, if their orders are forwarded immediately.

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## "FRUITLAND NURSERY," AUGUSTA, GA.

## IMPORTANT NEW ARRANGEMENT!

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS B. BERGMAN, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which numbers many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen or hardy of M. BERGMAN's contain all the best and rarest varieties of other fruit known in Europe and America, from which we shall cull everything of especial merit. It is not our object to multiply varieties, but to select, with the greatest care, a few of the very best for extensive propagation. A limited number of the choicest Pear trees, selected by M. BERGMAN, will be offered from any Nursery, the coming fall, and all the leading varieties of Southern Fruit, Roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at very moderate prices.

For Full Descriptive and Priced Catalogues, sent post paid, to all applicants. Address, "D. REDMOND, Augusta, Ga. April 57—tf.

## REAPING MACHINES.

HAVING had the KENTUCKY HARVESTER thoroughly tested we now confidently recommend them to Planters as the best Machine for Southern use ever offered.

April 57—3t

CARMICHAEL &amp; BEAN, Augusta, Ga.

## LAWSON WATERMELON SEED.

A FEW packages of genuine "Lawson" WATERMELON SEED, at 10 and 20 cents each. If per mail, 16 or 32 cents may be sent, to cover postage. Address April 57—4f PLUMB & LEITNER, Augusta, Ga.

## SOUTHERN CULTIVATOR FOR 1854.

BOUND volumes of the SOUTHERN CULTIVATOR for 1856 may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address WM. S. JONES, Augusta, Ga.

1857!

1857!

## SOUTHERN CULTIVATOR,

## A MONTHLY JOURNAL.

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume commences, in January, 1857.

## TERMS.

ONE COPY, one year, \$1 TWENTY-FIVE COPIES, \$20  
SIX COPIES " " ONE HUNDRED COPIES, \$75

ALWAYS IN ADVANCE. No paper sent unless the cash accompanies the order.

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Remittances, by mail (post-paid) will be at the Publisher's risk.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

## HORSE POWERS, THRESHERS, GRAIN

Cradles, Fan Mills, &amp;c.

WE are now prepared to furnish GRAIN GROWERS, with McCORD'S HORSE POWERS, a light and excellent article.

BOGDARD'S HORSE POWERS, all Iron, heavier than the

Cords.

TAPLIN'S and WARREN'S HORSE POWERS, made of Iron frame THRESHERS; Baltimore, New York, and Georgia made THRESHERS; from \$30 to \$60.

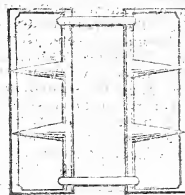
FAN MILLS, of the best make and different sizes.

GRAIN CRADLES, a light and strong article.

Also, BELTING, and all articles necessary for gathering and cleaning Grain for market.

CARMICHAEL & BEAN, Augusta, Ga.

## PATENT BUCKLE



I DESIRE to sell the Right of making and selling the new DOUBLE JOINTED PATENT BUCKLE, and will thankfully receive offers for it until the 1st day of June next. The Buckle is the best that has yet been invented, one answering for the whole wardrobe and should be made of gold or silver. The Right of one State is worth a fortune. I will sell the Right of one or all the States together.

Gum Creek, Dooley Co., Ga., Nov. 24, 1856.

Jan 57—3t

## GRADE CASHMERE GOATS.

FOR SALE, a few half blood BUCKS at \$30 each. Address [Nov 55—tf] R. PETERS, Atlanta, Ga.

## CENTRAL RAILROAD.

ON and after Sunday, the 14th October inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

BETWEEN SAVANNAH AND MACON.	
Leaves Savannah Daily at	5 00 A. M. and 12 15 P. M.
Arrive in Macon	2 15 P. M. " 1 00 A. M.
Leave Macon	11 45 A. M. " 9 30 P. M.
Arrive in Savannah	10 45 P. M. " 7 20 A. M.
BETWEEN SAVANNAH AND AUGUSTA.	
Leave Savannah	12 15 P. M. and 8 30 P. M.
Arrive in Augusta	8 45 P. M. " 5 30 A. M.
Leave Augusta	6 00 A. M. " 4 30 P. M.
Arrive in Savannah	1 30 P. M. " 10 45 P. M.
BETWEEN MACON AND AUGUSTA.	
Leave Macon	11 45 A. M. and 9 30 P. M.
Arrive in Augusta	8 45 P. M. " 5 30 A. M.
Leave Augusta	6 00 A. M. " 4 30 P. M.
Arrive in Macon	2 15 P. M. " 1 00 A. M.
BETWEEN SAVANNAH, MILLEDGEVILLE & EATONTON.	
Leave Savannah	5 00 A. M.
Arrive in Milledgeville	2 45 P. M.
Leave Macon	11 45 A. M.
Arrive in Eatonton	5 00 P. M.

W. M. WADLEY, Gen'l Superintendent.

Savannah, Ga., Oct. 12, 1856.

July 56—tf

# SOUTHERN CULTIVATOR.



N. ORS. CO. N.Y.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

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AUGUSTA, GA., JUNE, 1857.

NO. 6.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH---(JUNE)

#### THE PLANTATION.

CONTINUE to plant Corn at all favorable opportunities, plowing up deeply, a few acres after every rain, and putting into the ground in the best manner. We have often made good crops after the "latter rains" of June—but the sooner you plant now the better. Corn and all other provision crops will rule high this year. After the first hoeing, give your corn a top-dressing of gypsum, ashes and salt—10 parts of the first, 4 of the second, and 1 of salt. It will be of great benefit in a dry season, and no injury at any time. Try it, if you can obtain the plaster. Work your young Corn as often as possible, giving the roots a deep mellow bed in which to extend themselves, and leaving the surface level and well pulverized.

Plant plenty of Cow Peas, using Plaster as a top-dressing, after they are well up. It will act like magic on lands deficient in lime. Plant, also, the Chinese Prolific Pea; which will yet give you a good yield, with favorable "seasons." Plant, also, plenty of Pumpkins among your corn, or in a separate patch. Milch cows and hogs relish them greatly, and they are quite fattening when boiled up with meal or bran.

Cotton will need constant and unremitting attention during the present month. Scrape and mould the plant as soon as possible; keep the weeds down, and the ground in a state of fine "tilth."

Sow, in the drill, in your richest land, large quantities of Chinese Sugar Cane and Corn for forage. A farmer has never too much rough provender; it is useful for soiling as well as for curing to hay. Buckwheat should also be sown; it does best on high sandy land; excellent for meal as well as for forage; for the latter purpose, cut it when in flower and cure it as you do hay.

Sweet Potatoes should be transplanted now as soon as possible. Dip the roots in a thick batter—made by stirring fine leaf mould and scrapings from the cow-pen into water—set the plants pretty deep, and shade the ground around

them with a few handfuls of leaves, and they will grow off finely, even in dry weather. Just before sundown is the best time for this operation with "draws."

Wheat, Oats, and early Corn Holder (from the drill) may now be cut and stacked up carefully on a platform of rails raised several inches above ground; or, (which is still better) put under cover immediately.

#### THE KITCHEN GARDEN.

Little can be done, the present month, in the garden, with the exception of mulching, weeding and watering. We regard the first operation (mulching) as of paramount importance in this climate, and have spoken of it so often that repetition seems unnecessary. Mulch everything—trees, shrubs, vines and vegetables—covering the surface of the earth, as far as the roots extend, with four or five inches of pine straw, chip mould, spent tan, sawdust or forest leaves—and you will find that trees and plants thus treated grow much faster, and receive little or no check from the long-continued drouths of mid-summer. Water should now be freely and regularly applied to all your growing vegetables, in the manner heretofore directed—leaving no moisture exposed on the surface to the baking rays of the sun. This is an excellent time to attack the weeds, and you must show them no quarter. Cut them down and let them die on the surface; or dig them up, and burn them, root, branch and seed. Plant Snap Beans and scatter a little short litter or sawdust on the ground after having covered the seed. This will make them come up.

Irish Potatoes can be planted and heavily mulched; they will give a fair crop in October. Plant Watermelons for a succession. During the latter part of this month Cabbage and Brocoli plants for fall and winter use may be set out.

Seeds of Cabbage, Cauliflower, Celery, &c., may be sown under low arbors, made of brush or pine tops, in order to shelter them from the fierce rays of the sun. Water often, until the plants are well up, when a little liquid manure may be used alternately with the water, from time to time. Plant a full crop of Okra, without delay. Plant Peas, Sweet Corn and Snap Beans, for a succession.—Transplant Tomatoes, and early Celery, &c., and prick out Celery, Cauliflower and Brocoli. Pinch off the lead-

ing shoots of your early *Tomatoes*, *Lima Beans*, *Melons* and *Cucumbers*, if you want the fruit to set early; and give the plants liquid manure if you desire large specimens. If the green worm is troubling your fine *Musk-melons*, place the fruits on a brick, when half-grown. Sow *Tomatoes* for a late crop, they will come in when the first is gone. Sow *Rutabaga Turnip* seed and transplant them like winter cabbages, in rows 2 feet apart and 18 inches apart in the row. The white and yellow summer *Radish* must now be sown. Transplant *Onions* and *Leeks*, if not done last month, whenever the season suits. Also transplant *Beets* where they stand too thick in the seed beds.

*Strawberry Beds* must be kept free from weeds, well mulched with leaves or "broom straw" and freely watered in dry weather. If you desire fruit, cut off all the runners as fast as they appear, and keep the ground cool and moist. But if you wish to increase your plants, the mulching may be dispensed with (except immediately around the plants as directed heretofore) and the surface must be kept clean, and well worked with a pronged hoe.

#### THE FRUIT ORCHARD.

Where the frost has not saved you the trouble, thin out all fruit from one-third to one-half, if the branches are heavily laden, and the remainder will be enough larger and finer to pay for the trouble. *Peaches*, *Plums*, *Nectarines*, *Apricots*, &c., may now be thinned, using for the stone fruits, by way of experiment, free growing and vigorous stock of the wild *Chickasaw Plum*; but the tree must be trained low and branching instead of tall, slender and "spindling." Mulch all young trees set out last spring, and give them a copious watering occasionally. Turn your small "shoots" into the orchard to devour fallen fruit, and encourage them to "root," or loosen up the earth by scattering a handful of corn to them occasionally underneath the trees. *Large hogs* are frequently destructive to orchards, tearing and mutilating the branches in their efforts to obtain the fruit, even when the ground is thickly covered with it.

#### THE FLOWER GARDEN.

Some hardy *Annuals* may yet be grown, but it is rather late. If you do not wish to take up your bulbous roots (by which method they often are lost in this climate, unless properly attended to,) give them a heavy mulching and let them stand in the ground until September, when they may be taken up, divided, and planted again. Whenever the *Dahlias* stop blooming, cut them down to the ground, and give them a good watering and a heavy mulch; they will soon sprout and bloom anew. Apply liquid manure occasionally to all your choice flowers. *Roses* should now be budded and layered—fumigated with tobacco smoke to destroy the *Aphis* or green fly upon the *Rose* and other plants. Gather ripe flower seeds in dry weather. Use water freely among your flowers whenever it is necessary, and do not disappoint the plants and yourself by giving them a little sprinkling, but give them a thorough soaking whenever you do give them a watering. Rain water is by far the best.

#### PLANTATION HYGIENE.

BY DR. JOHN M. TURNER, OF AUGUSTA, GA.

(Concluded from our May number, page 140.)

#### HOUSES.

Thinking a great degree of negligence prevails in reference to the construction of negro houses, causes us to notice them in this article. We have often seen them low, half-covered, half-ceiled and with half-made chimneys where it was impossible for the inmates to dwell comfortable or warm at nights. Now these, when viewed in reference to health, ought to be considered next in importance to clothing, food or location. Their houses are too often left to the negroes themselves to build in their own time, perhaps at night or during the Sabbath, which easily explains their careless manner of construction. Their imperfect covering keeps the house wet and damp—truly a source of disease. Being partially ceiled allows the cold, bleak winds of winter to rush whistling through, of which nothing can possibly be a more fruitful source of sickness and death to the African; for it seems if Nature has fitted him for anything, it is to bear, with impunity, the solar rays of an equatorial sun.

The low, half-finished chimneys, keep the house submerged in smoke, soot and carbonic acid gas. Now, those who are the least acquainted with the effect of carbonic acid gas on animal life, viz: that it is a gaseous exhalation connected with combustion that is directly poisonous, must soon see the danger that exists and be made to wonder that more fatal cases of apoplexy and suffocation do not occur; and the reason is this: gas being mingled with atmospheric air in the house so dilutes it as to prevent instant or sudden effect—nevertheless it comes thus diluted in contact with the bronchial apparatus and delicate structure of the pulmonary tissue (the lungs) for a length of time—a succession of nights, the negro breathing it while in his house. Thus it produces its slow though sure effects, as is seen by the sore throat, cough, pain in the side, dry and husky skin, emaciation, &c., that follow.

To such management we cannot too earnestly place our "veto," nor can we too seriously direct the attention of slave-owners to these hovels as a source of affliction and suffering among our black population. Even medical practitioners have, in part, overlooked it. Let it be remembered that the lungs are among the most important organs of an animal, and respiration, their function, one of the most important operations of life. Consequently, any course that would impede the healthy function of these organs invades the very *capital of life*.

I do not deem it important to give specific directions how negro houses should be built. I would only say, in their construction let an eye-single be cast to the preservation of their health. They might be placed some height from the ground, say 2 or 3 feet, so that filth may be conveniently removed from underneath. The chimneys should extend above the houses sufficiently high to prevent smoking. Around the houses should be kept clean—swept whenever the filth accumulates, at least once per month, and the whole house cleansed and white-washed once every summer as soon as our corn crop is laid by—that is just before the commencement of sickly season. This adds very much to the comfortable and neat appearance of the buildings, and is, also, by its cleansing and purifying effect, *conducive to health*.

Having frequently observed typhus or jail fever occur almost epidemic where crowded apartments or filth prevailed, caused us to make some investigation while residing among the cotton plantations of Burke Co., Ga., and Barnwell District, S. C., in reference to the origin and cause of congestive and typhoid fevers that has proved such a scourge to our country for the last dozen years, and



in many instances I have concluded if those diseases were not propagated, they, at least, were rendered more malignant and fatal among our black population, by crowding many to sleep in the same room, and it, perhaps, in a filthy condition.

The result of breathing air that has been once respired and, consequently, deprived, in part, of its vital principle (oxygen), and at the same time charged with the perspirable exhalations from the skin cannot, in a longer or shorter time, fail to enfeeble the "vis vital," and prove, in the sequel, a source of disease. Consequently, we suggest the propriety of building houses of a *reasonable size*, according to the number of the family that is to occupy it. Two families should not occupy the same apartments: besides injuring their health it has a tendency to injure the morals. And, moreover, these negro houses should not be built in an open field.

We prefer the woods—the shade of the trees has some effect in warding off the solar rays in summer and the piercing winds of winter, and, perhaps, the malarial exhalations of autumn. We would farther suggest that once our buildings are erected no large clearings of land and cultivating the soil near the houses be effected. Deadening timber, clearing land and cultivating the soil, all tends to render a place sickly.

We have noticed (with but few exceptions) the very year large fields are put under cultivation near the residence, that that year was noticed as a sickly one. Prof. Dunglison in his recent work on the Elements of Hygiene suggests the idea, and supports it by good evidence, that the turning up the soil by the plow is productive of febrile diseases. And on page 100 of said vol. is a letter written by W. S. Whipple, M.D., Surgeon in the United States Army, in which he says, "When he was stationed on the Wallamette River, in Upper California, the Indians hold that they were strangers to disease until the whites come among them to inhabit. And the oldest white inhabitants or settlers among them, who have been there more than thirty years, attribute the appearance of disease (fever,) to the turning up of the soil for agricultural purposes. They say, in any of their River regions the sticking a plow or hoe into the ground is followed by ague at certain periods of the year, as invariable as the thunder clap succeeds a flash of lightning. These statements, of course, are made by men ignorant of medical philosophy, but in matter of fact their statement can be relied on, as much as persons more enlightened, especially when we consider they have no theory to support and are free from the strong prejudices and fallacies of reasoning which often arise from this source."

If such have any weight it must prove an additional argument to build our own dwellings and that for our slaves where the tree has not fallen and where the plow and hoe have not disveiled the virgin soil.

The woods around our houses might be burned every spring after circumscribing by a rake the limit or extent we wish burnt. A damp time should be chosen when it is quite calm, so as to prevent the fire set out from spreading beyond our limit. By thus acting, much matter that would prove as a source of malaria the coming autumn will be destroyed and the danger of an unexpected fire prevented.

Gin Houses and Stables, both a source of malaria on a plantation, ought to be placed at some distance from the dwellings. We have noticed large collection of cotton seed near the dwelling emanate an odor while in a state of putrefaction sufficient to produce disease. The stables should be kept supplied with straw of some kind to serve the double purpose of comfort to stock, absorption of their excrements and formation of manure for our crops; they should be freshly supplied every one or two months and the filth removed at some distance to the fields and placed in heaps to undergo the rotting process.

## OCCUPATIONS.

Often have we noticed laborers on a farm taking night time to accomplish such business as ought to have been performed through the day, thus exposing them to night air or depriving them of "Nature's sweet restorer—balmy sleep," which is so very necessary to the preservation of good health. Slaves should be prevented from too much visiting or sitting up too late at night. A regular hour should be prescribed for retiring and rising. The established maxim—

"Early to bed and early to rise

Makes a man healthy, wealthy and wise"—

will apply to the field laborer as appropriately as to any other class. By so doing, we get the nap before midnight which is generally thought to be doubly as beneficial as when taken in the latter part of the night. Many times during our professional avocation, have we had placed under our care female slaves laboring under diseases peculiar to their sex, and they were so frequent that we were led to investigate the cause, and the result of such a search has forced the conclusion, that many of those diseases were produced by mismanagement at or soon after their accouchment, or from straining and lifting heavy burdens. Such indiscretions produce female disorders that ever after render her barren, or entail upon her different degrees of uterine displacement, that produces a watery discharge from the genital organs, which can prove nothing but a source of misery and suffering to herself and a useless burden to her owner. Now, as lifting heavy burdens and severe straining is often attended with such effects on the female, such as rolling logs, making fences, lifting heavy rails, &c., we recommend the avoidance as much as possible of such business. Let that kind of plantation work be set aside for the males. We would also recommend very careful management at and after confinement, both for the safety of the mother as well as child. Let such remain in door, sewing, patching, making children's clothes, from four to five weeks.

Thus have we given a few hints in reference to the preservation of health on our Southern plantations, intending what has been advanced to apply more particularly to the slave population. Such has been the landmarks that have directed our conduct among our own slaves ever since agriculture has been our pursuit and engaged our attention, and that has been for near twenty years. We are aware that the field is wide and the subject deserves more attention than we have been able to devote to it, and would fain hope these few observations may elicit investigation from stronger minds and abler pens than ours.

Augusta, Ga., 1856

## CULTURE OF BROOM CORN.

In reply to the inquiries of several correspondents on this subject, we would say that the selection of a soil adapted to it, and its proper preparation to receive the seed are of prime importance. It is sometimes said that any soil in which Indian corn will grow will answer for broom corn. This is hardly true. Cold, stiff and wet land must be avoided, and so must that infected with the roots or seeds of weeds. Broom corn is naturally slow in its early growth, and needs a warm, rich and finely pulverized soil. Nor will it always succeed without a little help from some concentrated fertilizer, as Guano, &c. And after it has got a start, it cannot contend with weeds, like Indian corn. If the farmer is so unwise as to plant it in a soil full of "foul stuff," he must expect to labor hard and perseveringly to subdue the weeds, or they will subvert his broom corn.

We say, then, choose a warm, rich, clean, portion of the farm, alluvial land, if possible; manure, plow and



harrow as for Indian corn. Take special pains to get the soil in fine tilth. Plant as early as possible—in this latitude, from the 1st to the 25th of May—in rows three to three and a half feet apart, and in hills from one and a half to two feet apart. Pass a light roller over the hills after planting. About a dozen seeds should be planted in each hill, and at the second hoeing the plants should be thinned out, leaving only eight to a hill. Many experienced farmers use a little guano, poudrette or ashes, to give the corn an early start and keep it ahead of the weeds. This should be done with a careful hand, or the fertilizer will make a clean sweep of the brooms. The summer treatment of this crop is precisely like that of Indian corn. The horse cultivator should keep down every weed. At the last hoeing, the plants should be killed up a little.

In September, when the heads are matured, the crop should be "tabled." This is done by going through the field, row after row, and breaking down the top of each plant, so that it will lie in a horizontal position. The crop is then ready for harvesting. Before severe frosts come on, go through the rows and cut off the brush with a sharp knife, just above the upper section, and spread them in thin layers on the barn floor, or on piles of loose rails or poles, where the air can circulate freely through them. When thoroughly dried, they may be cleaned of seed by machines, many styles of which have been made for this purpose.

A correspondent of the *Cultivator* describes a cheap instrument, which can be made by any farmer, as follows: Nail a plank, about three-fourths of an inch thick and ten inches wide, to a stationary bench, letting it (the board) run above the bench a foot. Then take a saw and make teeth in the end of the said plank, like those of a comb, and we are ready for operations. Take three or four straws at a time and draw them across the comb till they are clean, pressing a little with one hand, while you draw with the other, and so proceed until all your brush is ready for the broom-maker—*American Agriculturist*.

#### THE NEW SUGAR CANE.

It is probable that none of our readers are ignorant of the fact that a new and important addition to the agricultural products of our country has been made within the past two years, under the auspices of the Patent Office, through the instrumentality of D. J. Browne, Esq., who visited Europe in 1834-5 for the purpose of obtaining new and improved varieties of plants, &c.; nor that, while the great value of the Chinese Sugar Cane procured by Mr. Browne in France is very generally acknowledged, there are yet not wanting those who still doubt the fact, or are disposed to persist in disparaging the useful efforts of this important branch of the Department of the Interior. The arrival of Mr. Wray is, therefore, is peculiarly opportune; for he comes not only prepared with overpowering evidences of the great value of the new Sugar Cane, but with the seeds of new varieties, specimens of sugar and alcohol manufactured from its juice, the testimony of ample experience in its cultivation, and the information and skill in relation to its manufacture which an experienced and intelligent mind alone can possess at this early period in the history of these new products.

Repairing to the Cape of Good Hope from India in 1851, for the purpose of a temporary sojourn only, Mr. Wray was induced to ascend to Caffria by the representations he had received respecting the soil, climate, and products of the country, and there found a number of persons engaged in the cultivation of the ordinary sugar cane, but was surprised also at finding among the spontaneous products of the soil sixteen varieties of a plant rich in saccharine juice, but which he was informed all attempts at crystallizing had proved unavailing. Yielding

to the temptation, however, he at once constructed, in a retired place, some rude machinery and appliances for extracting the juice and reducing it to syrup and thence to sugar, and found but little difficulty or delay in the performance of his purpose. He thereupon at once changed the plans for the future that had led him to Africa, and resolved upon introducing to the civilized world this plant of inestimable value. How far he has already succeeded may be understood when we state that the *Inphee*, as Mr. Wray prefers that this plant should be called, is now known in the product of the cane and the manufacture of sugar, alcohol, and other products from its juice in England, France, Spain, Portugal, Italy, Germany, Belgium, Turkey, Mauritius, Ceylon, Tunis, the East Indies, the West Indies, Brazil, Canada, and the United States.

We have stated that Mr. Wray has found sixteen varieties of this plant; and we may add that the variety hitherto brought to this country from France constitutes a seventeenth. How widely these varieties differ from each other we are not fully informed; but we understand that they differ in size, in the strength of the stalk, the period of growth, &c. Every agriculturist acquainted with the variations in all the staple crops of the country, and the adaptedness of each to its special use, locality, season, &c., will readily comprehend the probability and the wisdom of the same arrangement with respect to this novel product.

In answer to a question respecting the propriety of applying the name "*Chinese Sugar Cane*," Mr. Wray stated that, although it is doubtless indigenous to Africa, he yet found no difficulty in identifying it with specimens formerly obtained in China, in which we believe, however, the seminal principle had been destroyed by the time consumed in transportation and the attendant vicissitudes; but strangely enough, so far as can be learned, even the Chinese have failed to crystallize sugar from its juice; though there, as well as in Africa, this sweet and luscious juice is doubtless universally relished.

In Africa thirty tons of the green stalks are obtained from an acre of ground. In the South of France the product has varied from 10 to 30 tons; and under favorable circumstances, from 60 to 80 per cent for juice may be extracted from this. The average product of dry seeds is about 50 bushels to the acre. Mr. Wray also fully confirms, and even amplifies the other important representations that have been made on this subject, especially in relation to the value of this plant as a forage crop. Cattle, horses, sheep and swine are all fond of it, and the honey bee delights in the richness of its flowers. In the particular of culture, his information also accords with the instructions that have been issued from the Patent Office. The time of planting must, of course vary, according to the latitude and local peculiarities. It is very hard in resisting excessive moisture, continued drouth, or early or late frosts. It will not probably exceed, nor, it may be, even equal in productiveness, crop for crop, with the sugar cane of the tropics; but it has the advantage of yielding several crops in the year in those latitudes—of being, indeed, a continuous bearer.

Mr. Wray favored us with three samples of the products of this plant—the first, a specimen of sugar dried with the molasses in it to preserve the peculiar aroma; the second, a specimen free from molasses; and, third, a specimen of unrectified alcohol distilled directly from the juice. These specimens are now in our office, and we will take pleasure in exhibiting them to all who are interested in this subject.

Something has been said of Mr. Wray's having visited this country for the prosecution of some special enterprise with other gentlemen indicated. This is a misapprehension which does injustice both to him and to

those persons. He is evidently a gentleman of great intelligence and energy, (heretofore, we may add, well known to the scientific public, especially as the author of an approved work on the subject of Sugar Culture,) and we are gratified to learn from himself that there exists no restriction or impediment to the exertion of his influence in presenting to the whole country every facility requisite to the cultivation of this invaluable plant and the manufacture of its products.—*Pennsylvanian*.

#### ON FEEDING HORSES IN TRAVELLING.

The following communication was written by J. B. C. Gazzo, of Gazon, Lafourche Parish, La., for the Albany Country Gentleman:

I have been travelling on horseback for more than 17 years, within the parishes of Louisiana. As regards the face of the State of Louisiana is presents a great diversity of roads, and bayous, some part of the country being sloping valleys, others flat ridges or coteaux, the upper part of swamps; others, such as the roads along side of the banks of the bayous, and furthermore in the southwest part of the State, Attakapas and Opelousas, are very extensive prairie roads. As a physician travelling on horseback for that space of time, I have lost only one horse upon a journey during that period. He was travelled within this warm climate of 86° on a summer day, between 50 and 55 miles without eating. The day previous he was fed with many others in the same stable; the mess of corn for all the horses was thrown into a large trough, and they were all loose, and had free access to the whole. I have always believed that his death was owing to riding him too long without eating; and even after this long travel I have no doubt he would have done well if he had been in a separate stable, and been restricted to his portion alone as formerly. I have tried two modes of travelling. I have waited in winter for breakfast and then rode until night, and have always found myself and horse very much worn down at the end of the day's journey. My usual mode is to start two or three hours after day-light, and travel about five miles an hour until 11 or 12 o'clock, depending in some measure upon the distance of the stand or place that I wish to reach. In the winter season we generally rest from one to two hours, and can make our stopping place for the night in good time, averaging 45 to 50 miles per day. In the summer, I start at daylight, and ride till 11 or 12 and rest till 2 or 3 o'clock. My horse is as fresh in the afternoon as in the forenoon and I can travel from 50 to 55 miles a day without much distress to myself or horse. I give my horse as much food as he will eat during the night, but nothing in the morning in the way of meat, but always as much good water as he will drink. I have travelled as fast and as far in the same time as any other physician in America, and I do not now recollect ever to have injured a horse except the one mentioned above; and I am well satisfied that the latter mode of travelling is greatly preferable to both horse and rider.

**APPLICATION OF MANURE.**—To get the greatest benefit from manure, it must be intimately mixed with the soil. It makes a much greater difference than most farmers suppose, whether the manure is buried in lumps and clods, or whether it is carefully spread and intermixed with the soil, as far as may be by plowing and harrowing. The richest fertilizer is of no use to a plant unless fitted for plant food—so intermixed with the soil as to invite the roots, and so porous to moisture as to become soluble, that the roots may take it up. Hundreds of experiments have shown that a small quantity of manure, thoroughly mixed with the soil—so as, in fact, to become a part of the soil itself—will produce an immediate and astonishing result.—*Rural New Yorker*.

#### A FEW THOUGHTS ON TILLAGE.

THERE are many deeply interested in agriculture who read newspapers, but not agricultural journals. To reach such persons, we have been in the habit, for the last twenty-five years, of writing short, and as far as we were able, pointed articles, at once commending any good cultivation that we had chanced to see, and criticising defects common in the community. In this way, many are made to think, and finally to act, more in accordance with sound philosophy, as cultivators of the soil, than they would if no such suggestions, promotive of improvement had been placed before them. Our conviction is clear and abiding that Tillage ought to be carefully studied by every planter, farmer and gardener; because it is the foundation of all prosperity in agriculture, and of prosperity in all other industrial pursuits. Although we do not touch on the science of tillage in the following article, copied from the *Chronicle & Sentinel*, yet it will serve as an introduction to something more on the subject in the *Cultivator*:

ATHENS, April 26, 1857.

MR. EDITOR:—With your permission, I desire to avail myself of the large circulation of your weekly paper among planters, to offer a few suggestions, having for their object the general practice of an improved system of tillage.

All tillage has the effect to break up, and more or less comminute the earthy matter and vegetable mould that lie at and near the surface of the ground. Fertility is increased by the loosening and commingling of the various substances which constitute a soil, in a way, and to a degree not sufficiently understood by most cultivators. If no change were wrought in the constituents of the soil by cultivation, it is obvious that little or no benefit could accrue from the mere stirring of the earth by the plow or hoe. It is known, however, that important changes are effected by all the various processes of tillage; and if the nature of these changes were known not to a few, but to all planters, it would lead at once to very great improvements in this most important department of Southern agriculture. But, without taking the time, and occupying the space necessary to explain how a commixture of clay, sand and mould, greatly benefits each and all for the growth of plants, and how the free circulation of air and water through the tilled earth also promotes vegetation, I will state the almost self-evident fact that the value of stirring the ground at all depends on the thoroughness with which the work is done. I am confident that thorough tillage alone, if generally practiced, would lead to the speedy re-enclosure of all the land once cultivated, but now turned out, and temporarily abandoned, in the planting States. The bare fact that such lands have been for years under the plow is proof positive that the earth, even where the soil is washed away, or consumed by the chemical action of tillage and the growth of agricultural plants, contains the elements of fertility in a latent state. It is every way desirable that the public be able to develop these latent sources of agricultural wealth, and thereby render the South as distinguished for its general beauty and fruitfulness as for the skill and economy with which its happy labor is conducted.

To impart definite ideas on this subject, it is indispensable that I deal somewhat in weights and measures; for an acre of surface, a pound of cotton, a bushel of corn or wheat, are definite quantities, as are also the cubic feet of earth in an acre within twelve inches of the surface, and the number of ounces, drachms, and grains in each cubic foot of the things which make the crop grow, therein and there on.

In other words, nature never forms a plant from nothing, but always of elements which may be weighed and measured. There may be some doubt how much of any given plant is composed of ingredients drawn from water and the atmosphere, and how much from the substance of the soil; but experiments and analytical chemistry have thrown considerable light on this interesting point in rural science.

Knowing the number of square feet in an acre, and the weight of a cubic foot of common earth, we are able to state the quantity of soil stirred in plowing an acre at any given depth; each inch being equal to 100 tons. Owing to detection in the form of plows, it often happens that the ground is less broken at the bottom than at the surface, leaving it in a grooved condition; so that while the narrow point of the

plow penetrated perhaps six inches, all the soil was stirred to the depth of only three inches. Hence, in place of moving 600 tons of loosened earth per acre, the planter really stirs only half that quantity. Shallow plowing has the effect to harden the ground just below the surface, so as to prevent the descent of rain water, when there is an excess, to be stored up in the earth where it is needed in dry weather, and equally prevent the ascent of water from the deep sub-soil when plants suffer most from the want of it. In short, shallow tillage with a grooving plow operates to collect surface water into all low places that it may run off down any declivity in a volume sufficient to cut deep and ugly gullies through a cultivated field. That the practice of this system of cultivation has been followed by the results named, will not be denied, and that a remedy is a matter of great importance, is equally undeniable.

Riding over the plantation of one of the most enterprising and successful planters in Georgia, who cultivates a thousand acres of corn this year, I was forcibly impressed with the clearness and soundness of his views on the subject of tillage, as shown by the use of the most perfect cast steel turning plows, each drawn by four heavy mules, which broke up and turned over thirteen hundred tons of earth to the acre. This is stirring the ground to a degree which indicates that the cultivator is really in earnest in the pursuit of his noble calling; and although I rarely bring any gentleman's name before the public in print without my first obtaining his consent, I shall justify my remarks in this instance by saying that Mr. WILLIAM J. EVE, of Augusta, is the planter referred to, that others may see his plows and plowing, if they wish. Good tillage, however, implies something more than first rate plowing. Where much land is gone over, some will be broken when the ground is too wet, and some when it is too dry.

In either case, clay soils break into lumps, which need to be crushed. Mr. E. had three rollers in operation, two drawn by two mules attached to each, and one by four mules, which evidently did the best work, being more weighty than the others. The surface of a plowed field may be too open for the best condition of growing plants; a defect which is best removed by the aid of a roller, as well as the crushing of clods and lumps. In preparing seed beds for wheat, the best farmers in Great Britain, Canada and the northern States, make great use of the harrow. Rightly made and operated, no other implement of tillage equals it for imparting a *fine tilth* to the soil after it has been properly plowed. Mr. Eve had seven or eight at work, each drawn by two mules or horses; and while he is in advance of most planters in the extent and thoroughness with which he harrows his fields, his shortcomings in this part of cultivation would strike a Tennessee wheat grower as quite remarkable. My attention and thoughts at the time were too much engaged in considering what would be gained by under-draining and irrigation on his magnificent estate, and how expertly corn was dropped, guarded and covered, to criticise either his harrows or harrowing, as I am now inclined to do to inaugurate a better system of agriculture.

The function of a harrow is somewhat peculiar, and to render the percussion of its many times most effective in pulverizing the soil, it should move at a more rapid pace than the plow. It needs no handle like those of Mr. E. to move it, as the team, properly guided, will take it ever to the right places. According to the practice of the best cultivators elsewhere, his field near the Savannah river should have been harrowed two or three times more than it was, to attain the highest profit. On clayey land, long experience has demonstrated the sound economy of working three horses abreast instead of two, that the mechanical power may be fully equal to the attainment of the end sought; and at the same time the harrow should lap one half or two thirds on the ground already gone over by its iron teeth. In this way alone, can any seed bed be prepared for it a thoroughly tilled bed, in which to expand the myriads of tender rootlets that nature seeks to develop from its germ. To illustrate the soundness of the principle for which I contend, the reader's attention is respectfully asked to a few facts.

In no part of the Island of Great Britain is there solar heat enough to mature a crop of Indian corn; and in Scotland all elevated districts are too cold to mature wheat.

The soil of the latter is nearly as unpromising as its climate; and yet such is the skill of Scotch farmers near Edinburgh, that a few of them pay from twenty to thirty-five pounds per acre *per annum* for the use of land on which to grow grass, hay, and other forage, consumed by cows whose milk is sold at two and a half pence per quart. The rent of land, however, well irrigated and manured by the proprietor at \$100 to \$175 per acre, appears moderate; but that one can pay such a rent, and produce milk at five cents a quart, is still more extraordinary. I have the most reliable authority or the truth of both statements. The land in question has

yielded 100 tons per acre of green Italian rye grass in 12 months, equal to 25 tons of the best Northern hay sold in Augusta. Twenty five tons of Northern hay, at the present market price (\$1.50 per 100 lbs.) would bring \$750!

So far as milk and vegetables are concerned, one can support a family for half the money in Edinburgh which it costs in Augusta. This arises, not from any superiority of the sunshine of Scotland over Georgia, but from the undeniable facts that the citizens of Edinburgh have wisely cultivated and patronised agricultural and horticultural learning for the last fifty years; while all such knowledge has been unwisely neglected by most of the citizens of Augusta and of the South generally. The feeding of plants, and the feeding of persons are inseparably blended in the economy of nature. It is unwise in the people of any city to throw sand upon their own bread and butter. There is not an acre of land in the valley of the Savannah which is not capable of yielding at least ten tons of good hay in a year if properly irrigated. Why then should its citizens be forever dependent on the North for so weighty an article of almost universal consumption? Why should so many families be so poorly supplied with milk, cream and butter, while some of the best farming lands adjoining the corporation limits of Augusta are rented at four dollars per acre?

The same neglect, to study tillage as a profession, has rendered house-keeping in all southern cities unnecessarily expensive, and entailed on the State of Georgia the temporary blight of sixteen million acres of gullied old fields. But thanks to such planters as Mr. Eve, Mr. Miller, and others that I might name, thorough reform is in progress.

L.

#### THE COTTON CROP AND THE COURSE OF Exchange.

The financial editor of the New York *Day Book* is telling the Merchants of that great city some very wholesome truths. In a late issue, he says:

Nothing more illustrates the dependence of the financial institutions of the North upon the great Cotton crop of the South, than the condition of exchanges and trade at this season of the year, which is the period between the cessation of exports of the old crop of cotton, and the commencement of the exports of the new in September and October.

The cotton bales are the chief basis of foreign exchange. They supply bills to the dry goods importers, with which to pay their debts in Europe. The cotton growers are credited by the importers and jobbers, and they, again, by the foreign merchants. To enable jobbers to extend their credits at the South, they have to get credit with the New York banks to pay importers.

The moment the exports of cotton draw to a close for the season, sterling exchange advances to a specie standard, and specie begins to leave the banks for Europe, at which the said banks become alarmed, and a tight money market and fall in stocks are the cry. But as soon as new cotton begins to be exported in the fall, bills of exchange become plenty and cheaper; the banks again discount more freely, and the cry is that money is cheap and plenty.

Now suppose the dissolution of the Union could be accomplished for a single year, the financial business, growing out of cotton exports should, with the dismemberment occur in August, and cotton bales should cease for once, to form a basis of exchange for only a brief period, and the New York importers would have no resource left but to do now, and between cotton crops, that is, send out specie, how long do you suppose it would be before the banks would be compelled to suspend specie payments and call in their loans to the last dollar if possible! Where then would stand the occupants of marble stores? Where would then be the prices of stocks and of real estate?

General bankruptcy—worse than that of 1835, '37—would occur. Where would those thousands and tens of thousands of laborers in New York depending upon their hands, find their bread and clothing? Would not hunger and suffering from cold lead or riots, require military force to put them down? Yet we find five daily news-

paper in New York engaged in a sectional war against the South, and endeavoring to bring about the very crisis the effects of which we have referred to.

We have the phenomenon of a commercial city like New York, more than half of whose commerce is derived from the fifteen Southern States, with all its leading papers (or five out of its seven or eight), laboring might and main by every species of fraud, lying, and misrepresentation, to drive the South from the Union, and its trade from the streets of New York! Can madness and folly go further? If the evils of disunion could fall alone upon those who advocate it, or the punishment of treason be confined to disunionists and traitors, we should pray for its speedy advent.

**LOUISIANA**—The recent census of Louisiana shows the number of slaves to be 233,197, being an increase of only 18,388 over the total of the year 1850, which was 244,809. The free population numbers 324,605, being an increase of 20,853 over the total of 1850, which was 273,755. Thus while the increase of the slaves has been only 7 per cent., that of the free population is nearly 21 per cent. The preponderance of the free over the slaves is at present 61,409, whereas, in the year 1850 it was but 28,946. At the same relative rate of increase this preponderance will, in 1860 reach 81,000. Of the whole population, 33,000 was in the city of New Orleans, and 20,000 in other cities and towns. There was a manifest decrease of the slaves of the same communities. It thus seems that the rural free inhabitants has decreased several thousand, and that the tendency is to concentrate the poor whites and free blacks in the towns. Doubtless the great emigration to Texas and Arkansas has operated to prevent a large increase of the slaves.

#### NORTH DEVON CATTLE.

The merits of the Devon Breed of Cattle, for the yoke and the butter dairy, are too well known to need mention here. Though their yield of milk does not equal that of some other breeds in *quantity*, it so far surpasses them in *quality*, as to more than make up the difference, when wanted for the churn. As working oxen, they are unequalled by any other breed in activity, docility, intelligence and beauty; the fine red color is almost invariably obtained in the half-breeds, even though the cross be on a white cow.

But as beef cattle they are comparatively little known in this country; it may be well, therefore, to point out here their claims for adoption as such. The high prices for beef, which have ruled in all our markets for several years past, and the greater discrimination which is now made in the quality of meats, will warrant the farmers in other parts of the country than on the prairies and rich lands of the West, in turning their attention to the raising and feeding of steers. Throughout New England, the greater part of New York, Michigan and the far North-west, and again through all the Southern States, except Kentucky, Missouri, and parts of Virginia, the Devon will be found the most profitable breed for the raising of beef. The severity of the winters, and the shortness of the summers, together with the roughness of the country in the far North, combine to produce the same results as the intense heats, the droughts and the lightness of the soil in the Southern States, viz: scant pastures. Experience has proved that the Devon will stand both extremes of climate, and that there are few pastures so poor, but that a properly bred animal of this breed will gain flesh in them.

When fat, no beef known among us is equal to that of the Devon; the grain is finer, the fat and the lean better mixed, and the proportion of prime pieces is greater than in any of our other breeds. They will not, it is true, equal the Short Horns in either weight or early maturity;

but they have as much of each as the districts of country for which they are calculated will warrant. Half bred steers are fit for the butcher at three years old or a little over, and may be made to weigh 1,000 lbs. in the beef at that age.—*C. S. Wainwright's Catalogue.*

As an instance of the capacity of some of the Devons for milk, Mr. WAINWRIGHT further says:—"The cow, *Helena*, [heretofore figured in our pages] proved to be an excellent milker—giving as high as *twenty-two* (22) quarts per day, and making *fifteen* (15) pounds of butter a week. Her progeny have shown the same good qualities."

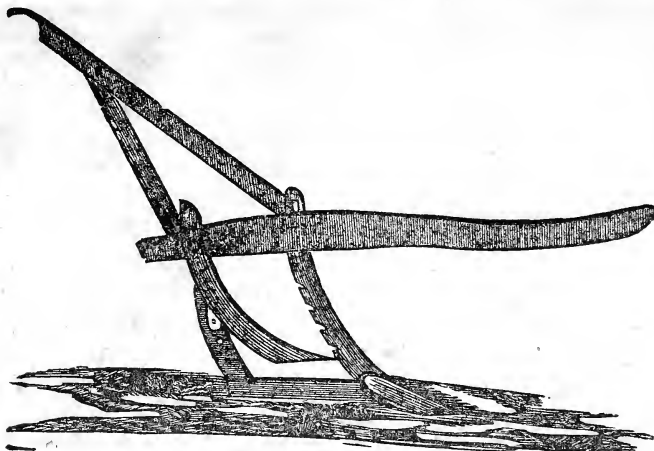
#### RURAL ART ASSOCIATION.

In a certain town within the circle of our acquaintance, a society of gentlemen has been formed, with the name of "Rural Art Association," whose object is the promotion of horticultural knowledge and taste among its members, and the improvement of the town in rural embellishment. Monthly meetings are held at each other's houses in rotation. The order of exercises is somewhat as follows: The first hour is devoted to supper and miscellaneous conversation; then, half an hour to the reading of an Essay by some member designated at the previous meeting: the remainder of the evening is occupied in a familiar discussion of some practical subject. This discussion is opened by some member appointed at the last meeting. He is allowed to speak twenty minutes. After his remarks, the Chairman calls upon all the other members by name, to express their views on the subject before the meeting, no one, however, being allowed to talk more than five minutes, except by special permission. Meanwhile the Secretary is busy taking notes of the debate, for publication in the village newspaper. In this way, the benefit of these meetings is not confined to the members of the Association, but inures also to the whole town.

In addition to this, each gentleman of the Society is required to pay five dollars annually, as a condition of membership. This furnishes a small fund, which is used in planting trees by the roadside in various parts of the town. The Committee having charge of the tree planting, endeavor to induce all landholders to set trees themselves against their own premises; but where this cannot be done, they use the funds of the Society for that purpose. In this way the streets of the town are becoming greatly improved. Last year upwards of one hundred and fifty trees were planted by the Association, and this year, as many more will be added to them.

We commend these facts to the notice of our readers. Individual effort will often accomplish much toward the rural embellishing of a neighborhood. But it cannot do everything; it cannot compass a whole town, plant trees by the mile, and adorn parks by the acre. Societies like the above, combining the judgment, taste and means of a number of respectable citizens, will generally accomplish important results. Their influence on the members themselves must be exceedingly happy, and the towns where they are organized have reason to be thankful for their labors and their *Am. Soc. American Agriculturist.*

**PERSEVERE.**—How many young men in our land are wishing and sighing to be great, who nevertheless, will pass away in obscurity? And the reason is a simple one and soon told. They failed in perseverance. There are two principles which if we possess, we may succeed in any undertaking. They are industry and perseverance. If you live secluded from the world, and wish to rise in their estimation and command their admiration? set your aims to studying and reflecting, and you may scatter your influence over the world.—But you must persist.



HARRIS' PATENT SUBSOIL AND TURNING PLOW.

WE present, above, a very rough and imperfect cut of "HARRIS' Patent Plow." It will be seen that it is intended to perform at one and the same operation, the work of a subsoil and turning plow—the lower and forward point entering the earth deeply, and loosening the subsoil; while the upper turning-share following, reverses or turns over a furrow-slice of surface soil upon that portion of the lower strata which has previously been moved and elevated. It is in its action somewhat similar to the "Michigan Plow" of the North and West, though the forward point merely lifts and stirs, without turning over the subsoil. The turning-share of the HARRIS Plow performs the same office as the rear mould-board of the Michigan; though, of course, being much lighter, it does not require the heavy draft of the latter.

From a somewhat cursory examination and trial of the

HARRIS Plow (above represented) we came to the conclusion that it is in many respects a really practical and useful Plow for moderately light soils, and that such further improvement as is necessary to strengthen and render it efficient, will naturally suggest itself to and be added by the inventor himself. The South stands sadly in need of Agricultural implements adapted especially to negro use and to our peculiar methods of culture, and all the efforts on the part of Southern men to give us improved plantation tools should be warmly encouraged.

Mr. A. R. CHILTON, P. M., Byhelia, Miss., informs us that he has bought from the Patentee the right of this Plow for Georgia, and many of the Eastern and Western States, and that he will be here about the first of June to dispose of county and individual rights. Our Farmers and Planters should give the Plow a careful examination and trial, and adopt it if found valuable.

#### A WOODEN MILL FOR THE CHINESE SUGAR CAÑE.

EDITORS SOUTHERN CULTIVATOR—I am a planter and take the *Southern Cultivator*, and *Cotton Planter & Soil*, but do not find any directions given in either to construct a wooden sugar mill. Many of us are experimenting (in a small way), with the Chinese Sugar Cane, and are not willing to go to the expense of an iron mill for the amount of cane we have to grind. The wooden mills are, I understand, used extensively in the lower counties of this State and Florida to crush the sugar cane, for which they answer a good purpose.

The object of this hasty scroll is to ask the favor of you to call the attention of some one acquainted with the construction of a good wooden mill, and ask them to give a minute description of one, at an early date, in the *Chronicle & Sentinel*. I ask the publication in that paper because of the *Cultivator* being a monthly, and if delayed to be published therein, the information would come too late for many of us. Yours respectfully,

JOHN BASS.

Sheffield, Newton Co., Ga., April 1857.

[An article for our July number will be early enough for all practical purposes; but if we receive it sooner than the issue of that number, we will publish it in the *Chronicle & Sentinel*, as our correspondent requests.—Eds. So. CULT.]

BAROMETER FOR FARMERS.—In one of his letters, Humboldt says that a barometer should be considered as necessary on a farm as a plow; but farmers generally prefer to trust in the moon and other exploded nonsense, rather than invest thirty dollars cash in a reliable instrument that would repay them tenfold. A substitute, called Leoni's Prognosticator, is sold for ten dollars. It consists of a phial full of a clear liquid, in which swims a snowy substance; in fine weather that substance lies on the bottom, but before a storm it rises to the surface, with a tendency to the side opposite the quarter from which the storm is coming. The substances used are kept secret. An ordinary barometer indicates the density of the atmosphere. Leoni's instrument evidently indicates its electric state, and for that reason we are of opinion that it is better instrument to prognosticate the weather. The following is a substitute that will not cost more than a shilling, and for aught we know it may be the identical thing itself. Dissolve some camphor in alcohol and throw into the solution some soda; the camphor will be precipitated in snowy flakes; collect these by passing the mixture through a filter, and put them in a phial with clear alcohol in which as much camphor as it would take has been dissolved. Cork it, place it where it will not be disturbed examine it every morning and night.



## LAMPAS IN HORSES---HOW CURED.

BY R. JENNINGS, V. S., CLEVELAND, OHIO.

LAMPAS, as it is termed, is a fulness or swelling of the bars, or roof of the mouth, caused by the cutting of the molar teeth. In all colts, lampas will be found. In many, however, little or no inconvenience may be observable; in others, the great tenderness of the parts involved, causes the animal to refuse his food, submitting to hunger rather than pain; in consequence of which, he is compelled to submit to an operation as barbarous as it is cruel, which is no less than burning out the bars with a red hot iron, leaving the mouth sore for some time after. This mode of treating lampas, has been practiced for years, and is, at the present day, almost the only course pursued in such cases, notwithstanding it is of no practical benefit whatever; but on the contrary, is often very injurious. Still, the owner will generally ridicule the idea of remedying the evil by any other means. It is an established fact, that children, during the period of dentition, are subject to the same disease. While some cut their teeth with little or no pain, others suffer severely. What father would submit to an operation upon his child? what mother would see her darling babe thus cruelly tortured? We be the practitioner who would dare to make such a proposition; yet men will submit their favorite steed to such torture, believing that course to be the only sure means of abating the evil. In this they are much mistaken. We do not deny that a horse thus dealt with, will regain his former appetite, but we assert, that, had not this operation been performed, he would have resumed his feeding equally soon, by means less painful and more humane. In the child, the humane practitioner, seldom does more than lance the gums. This, certainly, is a more rational mode of operating, and my experience teaches me, that my lancing the inflamed parts, the swelling soon subsides, and the horse soon feeds as usual. For this purpose, a common pocket knife will answer the purpose very well, after which, the mouth should be washed with a solution of tincture of myrrh, two ounces to a pint of water; this should be repeated twice a day, for three or four days, during which time, bran mash, flax seed gruel, and, if to be obtained, new grass would be very desirable. No hay, corn or oats should be given for a week; the teeth, then, will be in condition to masticate such food. By pursuing this course, you save your animal much inconvenience and suffering, without doing him any injury.—*Ohio Farmer.*

## TETHERING WORK HORSES AT GRASS.

A good many years since, when we lived in the county of King William, where, if we were twins, one of us would live again—either there or in Albermarle—we saw Gen. Aylett's horses and mules staked out on clover, and secured by a very simple contrivance beyond the possibility of escape or danger from the tether. The thing was made in this wise; take two small hickory or white oak poles, seasoned is best, and slightly flatten each end; get two links of an old chain or have two made; have made also two staples in the form of a jewsharp, with two small holes in the jaws thereof; connect them by the links, and then secure them by wrought iron nails to the ends of the poles. Now fix a similar shape to each other end; secure one of these ends to the ground by an iron pin 15 inches long, strap the mule by his neck to the other end and "let him rip."

Our esteemed friend, Mr. Wm. S. Fontaine of the same neighborhood, thus speaks of them, and of a still simpler plan.

"I used these tethers for some 5 or 6 years, and never knew any accident to occur. They were discontinued

simply because I had grazing lots and pastures enclosed, though I have tethered my mules out at night on the clover field for many years, simply for the convenience of catching them in the morning. I, however, with them, use a large rope 12 feet long, fastened to a leather halter, and tied to an iron pin 15 inches long—made thus, of half inch round iron: The whole business costs 60 cents, and it will last three seasons. When I do my mules thus I work one set half a day, stake them out, take up the other set and work the balance of the day. In this manner I never give my mules a grain of corn or a blade of fodder from the 10th or 15th of May, till the oats crop comes in. Under this treatment they become very sleek. When you first tether a mule he will wind himself up, but in a few days he becomes perfectly acquainted with the whole machinery, and never ties himself up at all. I was apprehensive that they would cut themselves, but I have had 12 mules tethered out every summer since 1847, and never yet have had one injured in the slightest manner. I had a wild horse somewhat cut by the rope on his hind leg; and with a small rope, particularly, there must be more danger than if the animal were running at large without any tether."—*Southern Planter.*

## COTTON FOR ROOFING---IMPORTANT INVENTION.

WE are favored by our friend, Mr. LEGARE, with the following letter, which originally appeared in the *Charleston Courier*; and having had the pleasure of inspecting some samples of the new material for roofing, as prepared and applied by the inventor, we must say that we have the strongest hope that it will fully realize his expectations, and prove of great value to the country at large:

AIKEN, S. C., April 28, 1857.

To the Editors of the *Courier*:

Gentlemen,—Any invention tending to increase the demand for a staple, cannot be without interest in a community more or less directly concerned in its culture or sale; for which reason I beg to make the following statement through your columns.

A few rough specimens of work in plastic cotton exhibited in November last, were so fortunate as to obtain a gold medal from the Institute; and the value of the invention has been since fully recognized by the press in various parts of the United States. At the time of the above named exhibition, however, the plastic mass had resisted all my efforts to render it capable of being moulded, as well as worked by hand. This quality I have since succeeded in obtaining, and, as well as a more valuable application as a substitute for the expensive roofing materials now in use.

Many experiments during the three or four past months have, I think, established the following facts: That cotton can be rendered fire and weather proof, and plastic at the same time, and laid upon roofs, either flat or inclined, so as to form a single unbroken covering, at a cost much below that of pine shingles, namely, from three to four dollars per square of 100 square feet. A single thickness, ( $\frac{3}{8}$  inch) of Plastic Cotton costs not more than \$2 @ 2.50 per square; a roof of double thickness ( $\frac{3}{4}$  inch) will cost from \$3 @ 4.50; the last named gross amount is scarcely justified, however, by even the present price of cotton.

The chemical salts used in its preparation, I need scarcely say, are among the cheapest of their kind, or the above results could not have been obtained. The hardness of the material is remarkable when dry—that is, from twenty-four to forty-eight hours after being laid on. In color it somewhat resembles slate, though this may be altered at pleasure. The different solutions for the menstruum may be kept an unlimited time, in casks or smaller vessels, and mingled in proper proportions (cold) when the raw staple is to be immersed. The immersion itself requires but 15 or 20 minutes, or, where the quantity is small, a still shorter time will suffice. I would only further say, that the menstruum referred to above is applicable not merely to cotton, but to any other fibrous material, and that the values I have assigned are consequently rather above the average.

The retention of vegetable fibre, in all cases, is the best safeguard against cracking or injurious contraction or expansion.



of the bees; and my later experiments go to show that it was a sort of now absolutely valueless material, amounting in our Southern country, may be converted to use by the above means, combined or otherwise with the more valuable staple.

I am, your obedient servant,

J. M. LEGARE.

**BEES AND THEIR MANAGEMENT---HONEY DROUTH---Notice of V. LaTaste's Reply.**

**EDITORS SOUTHERN CULTIVATOR**—My communication in your February number contains an important error, which makes me seem to say that I obtain an annual value of \$10 per stand. Two dollars is about the yield I obtain annually, or 2½ gallons, and 3 pounds of wax per stand.

I was much pleased with the accuracy of my style of boxes, as delineated in your March number, and again I would say, for simplicity, economy and yield of pure new honey, I know of no other so well adapted to the wants of most people. I am acquainted with other plans that answer the same purpose, as well, except an additional cost, in their structure. The directions and hints already given, if followed with tolerable strictness, will enable any one to reap a good reward for their pains. My locality is quite poor for honey raising. Other sections of country are much better, and there the boxes should be ½ to ¾ larger than mine, as given in the March number. Many persons are in favor of varying the size, to suit large and small swarms; but this is of little or no consequence, as it is well known that it is no uncommon circumstance for a hive to be very weak one year and strong the next; the strength of the hive depending entirely on the capacity of the queen for laying eggs; and the old queen always leaving with the first swarm each year; it follows that most hives change their queens, and vary their strength every year.

This is the third time, I have distinctly noticed a severe honey drouth, caused by killing frost; and light hives have been dying within the last few days. On the 6th inst., the mercury stood as low as 12° below the freezing point. A large amount of the forest is damaged. All domestic and nearly all wild fruit is killed; and a most promising wheat crop, is reduced to the forlorn chance of a late sucker crop. Bees, under the influence of this calamity will hardly swarm at all this season; or if at all very late. South of latitude 32 and north of 35°, I think and hope, the damage is light.

Mr. V. LaTaste takes up my simple doubt whether or not bees collect honey from flowers, and treats it, as a new opinion. A doubt is not an opinion; and I have not the slightest objection, to Mr. L.'s opinion, which agrees with most of writers on the same subject; but if Mr. L. would read Bevan on the Honey Bee he will see that my doubt is not new. Bevan notices several Apianians who entertained the same doubt, and at least one who contended that bees did not collect any honey from flowers; and although Mr. Bevan leaned to the contrary opinion, he related one beautiful experiment, which proved the soundness of my doubt. In substance he said: "A swarm just hived, was placed in a tight room, with an abundance of water and flowers, the freshness of the flowers were secured by frequent and various supplies; the bees made comb finely for one day, when their works were brought to a stand still for some days, when the comb they had built was taken away; and in addition to flowers, honey was placed in the room, and the next day, the bees again commenced making comb; then the honey was withdrawn, and the bees the next day again ceased making comb; and again the honey was given them, and the same result followed." This experiment certainly proved there was no honey collected from those flowers, or else the bees would have continued building comb.

New, I would like for Mr. LaT. or any apianian, to

solve this question: If flowers give or yield any honey of consequence, why is it that bees do not swarm during the greatest flowering season, but wait until after the greatest flock of honey is over before they commence swarming?

Here is my answer on the hypothesis that flowers yield but little or no honey: During March, in latitude 34°, is usually our great month for blossoms. It is then that bees are raising most largely (by far), preparatory to swarming, at the very season of the year when the food of the young bee is most abundant (the pollen of flowers), soon after this the swarming thousands launch forth,

Because God thus provides the store  
For those and many millions more;

at the very time when honey exists in greatest abundance to supply the wants of new families, which usually last about one month to six weeks; while leaves generally are arriving at maturity you may notice the busy little fellows crawling over the maturing and matured leaves, gathering particles too small to be seen by the naked eye; but when assisted by powerful magnifying glasses, show a brilliant body; and whenever this perspiring matter of leaves is copious, it spreads into bright flakes, very visible and then called honey dew; which is good evidence that the bees have had a rich harvest, and which is soon too hard for bees to make much progress in collecting of it. A very limited amount of leaves arrive at maturity, throughout the summer months, and until about the 20th of September, at which time honey making ceases, although blossoms continue tolerable plenty for weeks later.

Abhorring the idea of being tiresome, I stop, contrary to inclination.

M. T. McGEHEE.

Arkansas, April, 1857.

**CHINESE SUGAR CANE IN TEXAS---CHUFAS---Dioscorea, &c.**

D. REDMOND, "Fruitland Nursery," Augusta, Ga.

Dear Sir:—I take pleasure in acknowledging the receipt from you of a package of Chinese Sorgho, or Sugar Cane seed. I was in supply last year and from 40 hills, each 2 stalks or plants in a hill, saved a full bushel of seed. The plant grew so wonderfully in our remarkably dry season, to which was added very dry winds from the north, without dews at night, full as much as from the south, and the juice proving so purely saccharine, I became satisfied that the encomiums bestowed upon its first introduction were fully merited. Thence I distributed to every applicant and lent to very many persons, free of charge, nearly the whole of my seed. The late frosts having destroyed my planting, those from you came very seasonably and are very thankfully received.

I cannot verify the same regard for the Chufas, which is an imposition on sale, being nothing but the grass now well known everywhere at the South and as far North as Missouri. They are to be had in this neighborhood at gilt.

A late writer from Illinois says: "the *Dioscorea Batatas* is the Hog Potato." It may be so and none the less valuable. The Chinese variety may bear the same relation to its original stock or congener, that the apple does to the crab, and be altogether as valuable as represented.

In our rich alluvial and alluvial soils and fine climate of Texas, both the Sugar Millet and *Dioscorea* must attain great perfection and yield. Thanking you again, sir, for the Sorghum, I am

Respectfully yours,

C. B. S.

Montgomery county, Texas, 1857.

[We hope the "*Dioscorea Batatas*" will prove all that our friend anticipates; but we personally confess to a lack of faith in it, based on some partial trials a year or two

since. It is barely possible, however, that we had not the best variety; though we paid 50 cents each for tubers the size of common garden peas. The "Imperial Rice White" variety of a noted Northern dealer, was then unknown, nor have we yet invested in that tempting esculent. We may "get behind the age," in this matter, but we have the satisfaction of knowing that we are generally in the van, so far as the testing of agricultural and horticultural novelties is concerned, and we will endeavor to console ourselves with the best Yams and Irish Potatoes we can find, until the merits of the "Imperial Rice White" *Dioscorea Batatas* are more fully established.—D. R., Ed. So. Cult.]

#### UNITED STATES AGRICULTURAL SOCIETY.

*Great National Trial of Machinery and Implements of every description pertaining to Agriculture, and Household Manufactures, at the*

#### FIFTH ANNUAL FAIR,

*to be held in Louisville, Kentucky, during the Fall of 1857.*

The undersigned, a Committee of the United States Agricultural Society, appointed at the Fifth Annual Meeting, held at the Smithsonian Institute, in the city of Washington, on the 14th day of January, 1857, "to make all the necessary arrangements for a 'National Trial in the field of Agricultural Implements and Machinery,'" respectfully invite the inventors and manufacturers of all such articles, both in the United States and foreign countries, to participate in a public trial to be made at the Society's Annual Exhibition, to be held in Louisville, Kentucky, during the fall of 1857.

This new arrangement for the exhibition of Agricultural Implements and Machinery of all kinds in actual operation, results from a conviction on the part of the Society that no just awards can be made, except upon a practical working trial before competent judges; and the fullest opportunity will be afforded to test the comparative merits of the various machines that may be entered as competitors for the awards, both as regards land for field implements, and steam power for stationary machinery.

A separate trial of Reapers and Mowers will be made at the appropriate season, special arrangements for which, as to time, place, &c., will be announced at an early date.

It is intended that these exhibitions shall be on the most extensive scale, for the purpose of testing the working qualities of these important implements more thoroughly than has yet been done on any previous occasion, either in the United States or in Europe.

All articles from foreign countries intended for exhibition may be consigned to the "Agent of U. S. Agricultural Society, Louisville, Ky.," by whom they will be received and stored free of charge.

This brief announcement of the proposed trial is made at this early date to afford the most ample time for the preparation and transmission of machinery. A circular containing full particulars as to the regulations will be issued as soon as practicable, and, with the premium list, will be forwarded to persons who may apply to the Secretary of the Committee, Henry S. Olcott, American Institute, N. Y., where all business letters should be addressed.

To enable the Society to make arrangements on a sufficiently liberal scale, it is absolutely necessary that the Committee should know what articles will be offered for competition; and they therefore request that all inventors or manufacturers who may be disposed to unite in the

proposed trial, will communicate their intentions to the Secretary at their earliest convenience.

TENCH TILGHMAN, Chairman, Oxford, Md.

JNO. D. LANG, Vassalboro, Me.

J. THOMPSON WARDER, Springfield, O.

GEO. E. WARING, Jun., Am. Institute, N. Y.

H. S. OLCOTT, Sec., Westchester Farm School, N.Y.,  
*Committee on Implements and Machinery of U. S. Agricultural Society.*

✍ Editors of Journals of every description, who are desirous to promote the interests of Agriculture and Mechanics, will confer a particular favor by an insertion of the above circular.

#### TIME OF PLANTING SEEDS—A SUGGESTION.

EDITORS SOUTHERN CULTIVATOR—I have frequently consulted works on Farming, Gardening, &c., as to the best time to plant various kinds of seeds, &c., and sometimes fail; the cause (or at least one cause) being evident, viz: that the time stated in works of the above class might do very well in the locality where the publisher resides, but unless one was informed where that was, the directions would almost be worthless. How is this to be remedied? Can directions be given that will suit every climate (at least in the Southern States)? I think there can.

I would suggest, in place of mentioning any particular time or month, that a standard tree should be selected; for instance, say when the dog-wood or chestnut begins to bud, plant or sow such and such seeds; when in full bloom such a one, and so on in a similar manner. I am not sufficiently well skilled to give any directions, and merely offer the above idea, thinking it may possibly meet the eye of an older and more able hand than myself.

Respectfully yours,  
Fancy Hill, Murray County, Ga., 1857. J. B.

#### FALSE COTTON STATISTICS.

EDITORS SOUTHERN CULTIVATOR—I have a work before me by Thos. H. Drescott, entitled the "Volume of the World, &c.," in which he has given the agricultural productions of each State, and in doing so has made several very considerable mistakes, which I regret, as I always desire the history I read to be as near authentic as possible, so that the information I get may be correct. I am not able to correct the gentleman referred to precisely; the object of these lines is to request you or some of your readers to do so.

He puts down the cotton crop of Georgia, Alabama, Mississippi and Louisiana as follows:

Georgia.....	400,000 bales
Alabama.....	360,000 "
Mississippi....	215,000,000 lbs., or 612,000 "
Louisiana.....	781,886 "

Now, in the above calculation, I think injustice is done your State (Georgia), as I have always had the impression that Georgia was ahead of all the States in the production of cotton, and Mississippi next, Alabama next, and Louisiana next.

In a late number of the *Cotton Planter & Soil*, I see that a "Georgia Subscriber," and Dr. Phillips, both say that Mississippi is ahead in the production of cotton, so you see that there is diversity of opinion on the subject. I want authentic information on this subject, and will be thankful to you or any of your subscribers to give it through your journal.

Yours, &c. G. D. HARMON.

Utica, Miss., 1857.

✍ All subscriptions to the *Southern Cultivator* begin with the January number.

## IRISH POTATOES---THE FALL CROP.

Most people plant their Fall crop of Irish potatoes in May, usually after they have done planting corn; and therein they make a mistake. In a hot climate like ours, the vines grow very well in warm weather, but the tubers mature best when it is cool. The best natural climate for the potato is in Ireland, where it is cool and damp; in Nova Scotia and the New England States, where they have a short summer and an early, cool Fall, and in the mountainous regions of Virginia, where elevation is equivalent, in point of temperature, to latitude. We do not believe a mean potato can be grown on the Blue Ridge. We have raised the *long Johns*—a large potatoe with a flesh-colored skin and a productive kind—in Albemarle to great perfection of size, but of such a strong, *brassy* taste, that they were hardly fit to eat; and we have eaten the same variety raised at the foot of the Blue Ridge. The latter was a rich, mealy, well-flavored potato, equal to the Mercer from the North.

Let us consult climate, then, when we plant, and come as near the proper latitude as we can by artificial means. Late planting will enable us to do this.

A late neighbor of ours said, that his father one year, failing to get tobacco plants, enough for all his land in August, planted the remaining hills in Irish potatoes; and the product was the best he ever had. A market gardener of Richmond, two years ago, confirmed the statement; by his own experience. We then tried to follow the plan, but failed to get our seed and lost the crop. Last year we planted in May to be sure of the seed, but it was after the first drouth had set in, which lasted from the 6th day of May to the 3d day of June; and the potatoes either rotted in the ground, perished in the sprout, or died after they came up. We were so fortunate as to obtain another supply of seed, and on the 10th of July planted again. From the 7th of July to the 4th day of August was another period of very severe drouth, and most of the potatoes shared the fate of the first planting. But the crop was prodigious. As there were so many missing hills a good deal of guessing was necessary to get at the quantity of land actually growing the potatoes. But measuring the area and the potatoes, and guessing at the vacancies, we found we had made over four hundred bushels per acre of the largest potatoes we ever saw. They were curiosities; a gentleman at our table measured one—a sample of many—and it was nine inches long; several of them weighed a pound, and a great many, fourteen ounces.

Their size, and the failure to get a stand, were owing to the mode of preparation, which was this: the land having been previously well ploughed was laid off in rows three feet apart; the furrows they were dropped in was made by the plow going twice in it, up and down; guano, at the rate of four hundred pounds per acre, was scattered in the bottom of the furrow, and on this was laid stable and farm-pen manure indiscriminately, filling the furrow about two-thirds its depth. On this were planted the potatoes, cut into pieces, having two eyes each,—the cut part on the manure—and nine inches apart. They were covered lightly with plow, returning a portion of the dirt thrown out by its up and down furrows. In the drouth which ensued, the manure absorbed the moisture from the superincumbent dirt, and prevented any from coming up from below; and the potatoes perished in consequence. A row treated with guano alone grew off very well, and produced a good but not great crop. This is one of the Norfolk plans.

We would advise a trial of it—only a trial—by other persons, with this precaution: Let them prepare the ground as we did, but not plant until after a rain has saturated it. It will only be necessary to do it soon enough before hand to ensure that the crop will not be planted too

late. We would not wait until August; for a drought and an early frost might keep the crop back until frost. Ours was slightly injured by that cause, but mainly by the drouth: a light frost will do no harm.

We presume all our readers are familiar with the plan of raising potatoes under straw. If the covering is nine, or twelve inches thick, fine tubers may be grown in that way on the hard ground, though it will be better to plow and harrow until a good tilth be obtained. But do not plant too early in this way. The premium crop of Irish potatoes, at the late Fair of the Virginia State Agricultural Society, was grown by Francis Staples, Esq., of Henrico. He planted under straw on the 20th of June, and made on a measured acre, three hundred and ninety bushels of the finest potatoes we ever saw. They were not as large as ours, though of a fine size, but they were greatly better, round, smooth, and uncommonly mealy. Ours were not well-flavored as compared with Mercers, though they were very fair potatoes. Whether this inferiority was due to the variety, or to the mode of growing, we cannot tell until after another year.

The after cultivation in the Norfolk plan is very simple—throw the dirt from them and weed once—throw the dirt to them without weeding a second time. This is all: and for a Fall crop that much may not be necessary. It was so dry last Summer that no weeds grew; so we could not tell.

Reader, try this plan on a small scale, if you please.—The labour saved in harvesting and handling a crop of large potatoes is worth the labour and value of applying the guano and dung; and the satisfaction of having a nine inch, pound potatoe, for your guests, is something.—*Southern Planter.*

## EFFECTS OF COLORS ON HEALTH.

*Important Suggestions*—From several years' observation in rooms of various sizes, used as manufacturing rooms and occupied by females for twelve hours per day, I found that the workers who occupied those rooms which had large windows with large panes of glass in the four sides of the room, so that the sun's rays penetrated through the room during the whole day, were much more healthy than the workers who occupied rooms lighted from one side only, or rooms lighted through very small panes of glass. I observed another very singular fact, viz: that the workers who occupied one room were very cheerful and healthy, while the occupants of another similar room who were employed on the same kind of work, were all inclined to melancholy, and complained of pains in the forehead and eyes, and were often ill and unable to work. Upon examining the rooms in question, I found they were both equally well ventilated and lighted. I could not discover anything about the drainage of the premises that could affect the one room any more than the other; but I observed that the room occupied by the healthy workers was wholly whitewashed, and the room occupied by the melancholy workers was colored with yellow ochre.

I had the yellow ochre all washed off, and the walls and ceilings whitewashed. The workers ever after felt more cheerful and healthy. After making this discovery, I extended my observation to a number of smaller rooms and garrets, and found, without exception, that the occupiers of the white rooms were much more healthy than the occupiers of the yellow or buff colored rooms; and I succeeded in inducing occupiers of the yellow rooms to change the color for whitewash. I always found a corresponding improvement in the health and spirits of the occupiers. From these observations, I would respectfully drop a hint to the authorities of schools, asylums and hospitals, to eschew yellow, buff, or anything approaching to yellow, as the grand color of the interior of their buildings.

The following are some of the things not generally appreciated about a house:

1. The benefit of thorough drainage and water supply.
2. The benefit of good heating and ventilation.
3. The benefits of proper color.—*Correspondence of The Builder.*

#### HOME MADE GUANO.

By a communication in the *American* (Baltimore) Farmer, we learn that Mr. Thomas D. Rotch, a gentleman from Scotland, but who claims American descent—his father being a New Bedford man, and his mother from Nantucket—has secured in this country a patent for the manufacture of a manure by a treatment of the blood and offal of animals with sulphuric acids or other acids, or with copperas or other salts. Statements are made of the effects of this manure in England, that represent it as far superior to the best guano. A company for its manufacture has been organized in Philadelphia, and it is proposed to establish three others,—one in Baltimore, one in New York, and another in Boston. The patent in England was secured by a Mr. Oldham, who sold it to a company for fifty thousand dollars, and a "royalty" of two English shillings per ton upon all the manure thus made. That was a pretty tall price, but we have no reason to doubt its correctness. Mr. Rotch fixes the price of his manure at \$45 per ton of 2000 lbs.

We have long thought, and have often said, that something ought to be done to prevent the waste of fertilizing matter in our cities. We hope Mr. Rotch will meet with such success as to incite the skill and ingenuity of others to devise means by which the very life-blood of our farms may be returned to enrich our hungry soils, instead of breeding disease and death in our cities, by being suffered to pollute the air and water by which they are surrounded.

Mr. Rotch asserts that the manufacture of any manure in which blood and sulphuric acid are used "renders the sellers, the consumers and the manufacturers equally liable for damages."

We think that no patent ought to authorize so broad a claim as the above, which we give in Mr. R.'s own words and italics.—*N. E. Farmer.*

*Extract of a letter from Count de Gourcey.*

#### REMEDY---CATTLE LUNG DISEASES (Pneumonia.)

PARIS, January 3d, 1857.

COL. JOHNSON, Corresponding Secretary of the Agricultural Society of the State of New York:

I made the past summer, my accustomed agricultural journey; this is the 18th, and every one of them occupied four months. This year I travelled all over Germany, and went as far as Brumen, Moravia. I was present at the meeting of the German Agricultural Society, at Prague, when nearly 1,000 members were present; it was the 18th meeting, every year in a different city; this year the meeting outnumbered all its predecessors. I learned there much which I did not know before, and among other things, that the remedy to prevent the disastrous lung disease (Pneumonia) among cattle, was coming more and more into use. This remedy, consisting in inoculation, was discovered by Dr. Willems, of Hasselt, in Belgium. He inserts at the end of the tail some matter of the affected lungs of a sick cow or ox, being in this second stage of the disease. This remedy is now made use of by almost all cattle breeders, and still more by the graziers, of the whole continent; but it seems that they have not yet adopted it in England; for in the month of June last, Dr. Simons of the Veterinarian School in London,

spoke against this remedy, at the meeting of the Royal Agricultural Society. The governments of Holland and Belgium have presented Dr. Willems with the cross of their order. He is making quite a business out of it; and of many thousands of cows and oxen innoculated, the mortality has been only a half of one per cent. I have conversed with a great many farmers and graziers, in Germany, Holland, Belgium and France, who keep from 50 to 500 cows and oxen, and all speak with great commendation of Dr. Willems's discovery.—*Journal of Ag. So. of N. Y.*

#### CUT-WORMS---THE WEATHER.

EDITORS SOUTHERN CULTIVATOR—In the January No. of your popular journal I noticed an article from the pen of your correspondent "H." of Yazoo City, Miss., in relation to Cut-worms, Rust, Rot, &c., and asking for the experience of others on those subjects.

Having suffered severely for the last two or three years from the effects of that destructive insect, the cut-worm, has induced me to watch closely its habits, and endeavor to discover, if possible, some mode by which I could get rid of its certain voracious attacks on my young cotton in the spring; and after much research and investigation, I have finely come to the following conclusions:

That the only certain way to prevent the cut-worm from collecting in such numerous quantities, is to pull up every cotton or corn stalk and all the weeds and trash that may be on the land and burn them completely, for I have come to the belief that the egg of the insect producing that worm is deposited therein and hibernates there, and when these stalks and trash are beaten down and plowed in early in the season, are thrown together by the plow, and myriads of the young insects are soon produced, ready to overwhelm the young plants as soon as they make their appearance.

I have always been a strong advocate for plowing in everything that was on the land when I commenced cleaning up, and still think that it is of great advantage to do so on our poor and worn out lands, but he who follows the plan will always be troubled by cut-worms. In proof of this, I will state that I have a neighbor who is in favor of the English mode of preparing land to plant, that is: by raking and burning everything off clean, and he is rarely ever troubled by cut-worms, except on his sweet potato patches where he plows in his vines. I, on the contrary, have always plowed in everything, and have had any quantity of worms in my fields. This season, however, I have adopted my neighbor's plan, on a portion of my place and can perceive a vast difference in favor of his plan.

I would also recommend late plowing on old land as a preventive—not to ridge up until the cotton should be planted.

In reply to "H's" inquiry as to staying the ravages of the cut-worm after they are on us, I would remark that the only way that I have discovered, is his mode, *i. e.* by close and diligent worming every morning until the sun becomes sufficiently warm to drive them deep into the earth.

While on the subject of cut-worms, I will here state a fact that has come under my own observation within the last week in my field, and, if necessary, can produce the certificate of my overseer to the effect, that he having discovered a stalk of young cotton lately cut by a worm, made search at the root of the plant and found a very large cut-worm, which he pierced with the blade of his knife, and from the body of which a number (probably as many as twenty) of small living maggots or worms came forth. A few minutes after making this discovery, I happened to go into the field; he related to me what he had seen and conducted me to the spot where he had de-

stroyed the worm, and I witnessed the phenomenon myself.

A circumstance exactly similar to this was related to me several years ago by one of my neighbors, a gentleman of respectability and standing, but as the cut-worm at that time did not annoy me any, I did not pay much attention to it.

I am informed by my overseer that since he showed me what I have above stated, that he has discovered two other worms filled with living young.

Can it be possible that so many little worms were the larvæ produced from eggs deposited in the body of those worms by the ichneumon fly, which we know is the habit of this class of flies, or could they be the offspring of the worms themselves. I would like for some of your scientific and learned correspondents to investigate this matter.

That those little worms came from the body of the large ones is a matter of certainty, and if they were the offspring of the worms themselves, it will put at rest what we have been led to believe heretofore with regard to the manner in which the cut-worm is produced, by the different writers on those subjects.

If you consider this worthy a place in your columns you are at liberty to publish it, and I will at some other time give my views with regard to Rust, Rot and the Cotton Louse, of all of which I have seen a great deal.

We have had the most unpropitious spring, so far, that we have ever experienced for many years. A number of our planters have planted for the third time, and still the stands of cotton are very bad. The weather continues unfavorable, too, for the growth of vegetation of all kinds, being in the midst now of a spell of very cold and wet weather for the 1st of May. F.

*East Feliciana, La., May, 1857.*

#### FLESH IN VEGETABLES.

ALL vegetables, especially those eaten by animals, contain a proportion of flesh; for instance, in every hundred parts of wheat flour there are ten parts of flesh; in a hundred of Indian corn meal there was twelve parts of flesh; and in a hundred of Scotch oat meal there are eighteen of flesh. Now, when vegetable food is eaten it is to its flesh constituents alone that we are indebted for restoring to the body what it has lost by muscular exertion. "All flesh is grass," says the inspired writer, and science proves that this assertion will bear a literal interpretation. No animal has the power to create from its food the flesh of its own body; all that the stomach can do is to dissolve the solid food that is put into it; by-and-bye the fleshy portion of the food enters the blood, and becomes part of the animal that has eaten it. The starch and sugar of the vegetable are either consumed [burned] for the production of warmth, or they are converted into fat and laid up in store for future fuel when required. Grass consists of certain fleshy constituents, starch and woody fibre. If a cow arrived at maturity, eats grass, nearly the whole of its food can be traced to the production of milk; the starch of the grass goes to form fat [butter] and the flesh reappears as caseine or cheese. When a sheep eats grass the flesh of grass is but slightly modified to produce mutton, while the starch is converted into fat [meat]. When man eats mutton or beef, he is merely appropriating to his own body the fleshy portion of grass so perseveringly collected by the sheep and oxen. The human stomach, like that of a sheep or ox, has no power to create flesh; all that it can do is to build up its own form with the materials at hand. Iron is offered to an engineer, and he builds a ship, makes a watchspring, or a mariner's compass, according to his wants; but although he alters the form and texture of the materials under his hand, yet its composition remain the same. So as regards

flesh, although there be one "flesh of men, another of beasts, another of birds," yet their ultimate composition is the same; all of which can be traced to the grass of the field or a similar source. Flesh, then, is derived from vegetables, and not from animals, the latter being merely the collectors of it.

#### THE LIGHT AT HOME.

The light at home! how bright it beams  
When evening shades around us fall;  
And from the lattice far it gleams,  
To love, and rest and comfort call.  
When wearied with the toils of day,  
And strife for glory, gold or fame,  
How sweet to seek the quiet way,  
Where loving lips will list our name,  
Around the light at home.

When through the dark and stormy night,  
The wayward wander homeward hies,  
How cheering is that twinkling light,  
Which through the forest gloom he spies;  
'Tis the light at home; he feels  
That loving hearts will greet him there.  
And safely through his bosom steals,  
The joy and love that banish care,  
Around the light at home.

The light at home! when e'er at last  
It greets the seaman through the storm,  
He feels no more the chilling blast  
That beats upon his manly form,  
Long years upon the sea have fled,  
Since Mary gave her parting kiss,  
But the sad tears which then she shed  
Will now be paid with rapturous bliss,  
Around the light at home.

The light at home! how still and sweet  
It peeps from yonder cottage door—  
The weary laborer to greet—  
When the rough toils of day are o'er.  
Sad is the soul that does not know  
The blessings that the beams impart,  
The cheerful hopes and joys that flow,  
And lighten up the heaviest heart,  
Around the light at home.

#### COVERING MANURES.

We clip the following from the *American Farmer*, published at Baltimore. It is reliable and true doctrine:

It has been said with great probity and truth, that manure is the farmer's gold mine and we will add, that manure is to the vegetable kingdom what blood is to the animal system, the source of life. We, therefore, most earnestly advise, nay, conjure every culturist to exert himself by every possible means in his power, to accumulate everything that may be convertible into manure, and when accumulated to protect its qualities from deterioration. But few ever think how great a loss they sustain, by permitting their manure to be exposed to the sun, the wind and the rains, and as few reflect that ten loads of manure well taken care of, are, intrinsically worth more, and will go farther as a fertilizer, than twenty loads that may have been kept without regard to the preservation of its more enriching properties. Many a farmer, through want of attention, suffers his dung pile to become exhausted of its principles of vitality, long before he hauls it out to his grounds, for use—and many, after hauling it out, permit it to remain unplowed in for weeks, thus exposing it to further loss—and then, perchance, blames either his land or his manures for a fault that should properly attach to



himself, for having failed to preserve the virtues of his manure.

Every body of manure should be kept *covered* with earth a few inches in depth, until taken out for use, and when taken to the field should be plowed in as speedily as possible, or each pile as thrown from the cart or wagon should be covered with the surrounding soil, and that compressed with a shovel. But this kind of care, owing to the high price of labor in our country, is more than can be expected from the generality of farmers—therefore, for the present, all that can be expected is this, that the cattle and other yards should be sufficiently dished in form as to prevent the richness of the manure from being wasted by running away on the occurrence of each succeeding rain; that each yard be provided with a large body of rough vegetable matter and earth—say to the extent of 6 or 8 inches or more, in depth over the surface of such yard the dish-like form being preserved in spreading—to absorb the liquid voidings of the stock, and that plaster or charcoal be strewed over the yard every few days, to arrest and fix the volatile gases—and further, as the excrements of the animals accumulate a few inches in depth, through the season, over the yard, these should receive additional coverings of earth.

#### FLESH EATING AND VEGETABLE EATING.

To consider man anatomically, he is decidedly a vegetable eating animal. He is constructed like no flesh eating animal, but like all vegetable eating animals. He has not any claws like the lion, the tiger or the cat, but his teeth are short and smooth, like those of the horse, cow, and the fruit eating animals; and his hand is evidently intended to pluck the fruit, not to seize his fellow animals. What animals does man most resemble in every respect? The ape tribes; frugivorous animals. Doves and sheep by being fed on animal food, (and they may be, as has been fully proved,) will come to refuse their natural food; thus it has been with man. On the contrary, even cats may be brought up to live on vegetable food so that they will not touch any sort of flesh, and be quite vigorous and sleek. Such cats will kill their natural prey just as other cats, but will refuse them as food.

Man is naturally a vegetable eating animal; how then could he possibly be injured by abstinence from flesh? A man by way of experiment, was made to live entirely on animal food; after having persevered ten days, symptoms of incipient putrefaction began to manifest themselves.

Dr Lambe, of London, has lived for the last thirty years on a diet of vegetable food. He commenced when he was about fifty years of age, so he is now about eighty, rather more, I believe, and is still healthy and vigorous. The writer of the Oriental Manual mentions that the Hindoos among whom he travelled were so far from a tendency to inflammation, that he has seen compound fracture of skull among them, yet the patient to be at his work, as if nothing had ailed him, at the end of three days. How different is it with our flesh-eating, porter-swilling London brewers! a scratch is almost death to them.—*Flowers and Fruits, by J. E. Duncan*

**Horses' Coats.**—Lately going to the country to spend a few weeks with a friend of mine, I drove a very handsome horse, and a good 'un—but was always annoyed about his coat, as it was more like a lot of bristles than a horse's smooth skin, and all the grooming he could get "wouldn't do it no good." My friend, who is a great horse breeder and fancier, made me try giving him a few carrots every day out of my hand, saying that he would have a good smooth coat in three weeks—and he was right, for in that time my horse had a beautiful, sleek, glossy coat, and all from eating a few carrots daily. He tells me it is infallible.—*Porter's Spirit.*

#### EXHAUSTING THE SOIL.

Is it not a singular fact that in some of the old States we have immense tracts of land, thrown out of cultivation, as having become exhausted of the soil, whilst in the old countries of Europe, which have been in cultivation for centuries, the reverse is the case! The soil of Europe, says a traveller, is now better than ever—and the reason he assigns, is the plentiful supply of manures, and manures made upon the best possible system, by which the soil is receiving more back than is taken away in products.

Of all farm products, (says Mr. Charles Remelin in the *Ohio Farmer*) the atmosphere and rains furnish the larger quantities of its component parts, and whenever a proper system of manuring exists, the ground must become constantly enriched.

In Europe, manure is the ever present idea of the farmer, and by gathering all offals, and making manure in any conceivable way, he does not only by green manuring, such as plowing clover under, but by stable, factory, street, and dwelling manure, take good care to return to mother earth the rental she requires, and to do it without grudging and with compound interest. Soil is only there exhausted where crops are raised which are entirely removed, and of which nothing is returned to the soil—for instance, tobacco. This is very little in Europe. The fine wheat crops which smile upon the traveller, as he is rushed past them by railroad speed, would be an impossibility, if the idea of exhaustion were true. The meadows too, which are mown thrice every year, and each time give a good crop, have been mown for ages, contradicting this exhaustion theory. No! the European farmer, and his land, are always on good terms with each other. The man yields good husbandry and the land yields good crops.—*Exchange.*

#### BRINLEY'S STEEL PLOWS.

EDITORS SOUTHERN CULTIVATOR.—A gentleman living in Texas, a devoted friend of the "*Cultivator*," writes me enquiring particulars about the Brinley plow. He says, the plows he can get, only push wet earth before them, and do not turn the dry.

There is a soil in our low grounds black as a coal when moist; much has grit in it, yet so adhesive that it sticks to iron, whether cast or wrought. Many planters think the fault is in the plow, whereas the fact is, the fault is in the material. Wooden mould boards would do better, and steel even better.

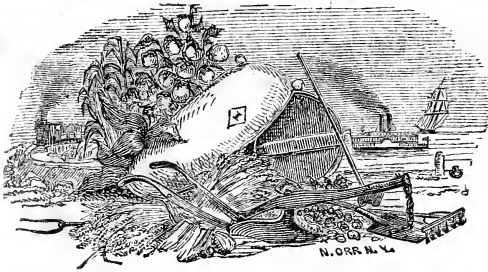
Brinley's plows are made of steel, and for this reason well suited to the Prairie soil, which plows best when rather wet. These plows are not only suited to this land, but to any lands not decidedly sand, as the construction is well adapted to turn a furrow with ordinary resistance. I do not believe they would turn a furrow in any land with the same resistance, nor with less on some land than other plows I have tried, but take strength, wear, quality of such and draft, all advantages, and I will put them against any other plow.

I have no hesitation in saying I will give a silver cup or goblet worth \$20 to any plow sent to me that will, in the judgement of my neighbors, be superior. I am interested in having the best in endorsing the best was; my only brother to start a 2nd rate plow, I would that "my right hand forget its cunning" ere I endorse. I have used the Brinley plow 3 years, and hesitate not to say it is the plow. Though steel, a common negro smith has sharpened and laid it several times. I say this, because many of my friends make it an objection, that country smiths cannot lay, &c. Yours truly,

M. W. PHILLIPS.

Edwards, Miss., April 1857.





# The Southern Cultivator.

AUGUSTA, GA :

VOL. XV. NO. 6.....JUNE, 1857.

## ANSWERS TO CORRESPONDENTS.

**CURRENTS.**—G.—The common Red Currant, of the North and Europe, does not thrive here. We have, however, several varieties of Black Currants in cultivation at "Fruitland," both in high and low ground, with every prospect of success, thus far. The "native currant" you speak of, is, we presume the Amelanchier, described in our last volume, page 385. Of this, there are two common varieties, the high and low bush. Both are easily propagated by seed, layers, and, perhaps, cuttings.

"PRO BONO PUBLICO."—We can only publish your article as an advertisement. See terms on last page.

**SUGAR FROM SORGHO.**—J. McC. L.—See the article of Prof. OLCOTT, in our May number. The first samples of Sugar we ever saw, from this plant, were made by Dr. ROBT. BATTEY, of Rome, Ga., from stalks furnished by ourselves. We are daily adding to our stock of information on the various processes of grinding the canes, making syrup, sugar, alcohol, &c., &c., and will be better able to answer your queries and those of many other correspondents, on this subject, hereafter.

**POLAND FOWLS.**—A Lady Subscriber.—The race is almost extinct in this vicinity—the Shanghais, Brahmas and other Celestials, having driven nearly all smaller and weaker varieties, except the Game, from the field.

**TO CORRESPONDENTS.**—The press of matter upon us has recently been so great, that very many of our most valued and interesting communications are necessarily crowded out of the present paper. Our July issue, however, will contain a great share of those deferred articles, and be, in many respects, a very original number. In the meantime, we trust all will continue writing—every article suited to our columns, is gratefully received, and sooner or later will have a place in our pages.

**SALE OF DEVON CATTLE.**—We have received the Third Annual Catalogue of Thorough-Bred North Devon Cattle, the property of C. S. WAINWRIGHT, Esq., of Rhinebeck, Dutchess Co., New York. Mr. WAINWRIGHT is well known as one of the most spirited, intelligent and liberal breeders of the North; and as a portion of his very superior herd is to be sold at auction on *Wednesday, June 17*, it will afford all who desire Devon Cattle of undoubted purity and excellence, an opportunity of supplying themselves. We hope the sale will have a full attendance, and that the prices may prove remunerative.

## ENLARGEMENT OF THE SOUTHERN CULTIVATOR.

SEVERAL of our friends and subscribers have expressed a wish that the *Cultivator* should be enlarged, and we confess that, spacious as are its present limits, we are often sadly in want of room for the increasing favors of our correspondents, and the current agricultural literature of the day. Should the circulation of the paper increase sufficiently during the present year, we will make some very marked changes and improvements in the next volume; but, until then, of course, the present form must be maintained. We do not expect to make the *Cultivator* a source of any particular pecuniary profit to ourselves, and shall, therefore, be ready at any time to devote to its improvement and embellishment a portion of any surplus that may accrue above the cost of publication.

## CONCRETE AND MUD HOUSES.

OUR very spirited and energetic contemporary, "*The Temperance Crusader*," of May 7, favors us with the following kind notice:

"The *Southern Cultivator* for May, is on our table, filled with Agricultural theories and many important directions to the farmer, upon a score of topics which address them selves to his success and great pecuniary gain in tillage. The ability, finished theories, and mature science which the editors (one if not both of whom are practical as well as theoretical men) bring to bear upon Agricultural themes in this journal, also the practical experience of good farmers communicated to others through it, makes the *Cultivator* an essential periodical for every farmer in the State.

This number contains complete directions by friend Redmond, one of the editors, for building Concrete or literally *mud* Houses. The cheapest of all plans for getting a desirable residence, or out-houses on a farm. He has erected one, and is now occupying it himself. Terms of *Cultivator* \$1 a year.

Our friend, SEALS, evidently misapprehends the nature of the material known in architecture as *concrete*. On turning to Webster's Dictionary, (quarto ed. pp. 243) he will find (§4) that *concrete* is described as "a mass of stone chippings, pebbles, &c., cemented by mortar, laid at the foundation of walls in spongy soils." This foundation of "concrete," continued up the full height of the walls (20 feet) constitutes the material of our "Fruitland" cottage; and is, in reality farther from being *mud* than a brick house would be, inasmuch as bricks are literally composed of mud or clay; and no clay whatever enters into the formation of *concrete*. In order to test all available building materials within our reach, (other than wood), however, we are now erecting a small negro quarter [52 x 14] entirely of well tempered clay-mortar, to which is added a small portion of chopped straw. The walls are to be one foot thick, and eight feet high, and the method of construction or building up, is precisely similar to that of the large *concrete* house described at page 152, May number. The roof-eaves of this building are to extend 2 feet outwardly over the walls, and the latter are to be coated externally with a good layer of cement. The floor will also be of clay, pounded hard and covered with cement, thus rendering it proof against predatory vermin and the pro-

verbal carelessness of the negro, so far as fire is concerned. The *foundation*, to one foot above the surface, is of *concrete*, as before described.

Ample and full ventilation is provided for; and we are sanguine of producing a very comfortable *adobe* house at a cost not exceeding that of a wooden one of the same dimensions. Further particulars respecting *concrete* and *mud* or *adobe* buildings hereafter—provided our readers desire the information. D. R.

#### RUSSELL'S MAGAZINE.

WE welcome the appearance of a three dollar Monthly Magazine in Charleston, S. C., emanating from the well known book establishment of RUSSELL & JONES. Neat and attractive in appearance, we are happy to believe that the work is in able hands, and that its success is ensured by men who have counted the cost, and possess peculiar facilities for reaching and rightly estimating the reading public. Its active literary digestion demands appropriate aliment oftener than quarterlies are issued; and hence it is, that so many Northern monthly and weekly journals are eagerly read at the South. If these were free from a mischievous spirit of propagandism, if they did not tend to weaken the South by emasculating its thought and literature, its art and science, we should not notice the obvious wrong of starving our own publishers and editors while the manufacturers of fictitious "Uncle Tom's" reap a double harvest of fame and fortune. Our duty, our self respect, and our manifold interests, material, moral and intellectual, urge us to cultivate *at home* the power and wealth of Letters. By so doing we do injustice to no one, but simply help ourselves.

The working Mind of the North is naterally aggrandizing; and for the South, it has more blows than coppers. As an element of strength, whether for defence or offence, the Press is unrivaled. Yield this to the enemies of Southern Society, and it will soon poison all our domestic relations, and divide every family against itself. Magazines have become a part of the life of advancing civilization. They must be consulted or one loses caste for common intelligence; and the only question is whether we shall have Northern or Southern ideas disseminated throughout the planting States. Not to give our own best thinkers a fair hearing is shabby treatment to say the least of it. The Magazine in question contains much that is both instructive and interesting—matter adapted to the tastes of both sexes, and worthy of perusal.

Sold at 25 cents a number, and \$3 per annum. Address "Russell's Magazine," Charleston, S. C.

RARE PLANTS FOR DISTRIBUTION.—It is stated in a letter from Washington, that the propagating department of the United States Botanical Garden there, is in a position to distribute a large number of seedling trees, cuttings and other like matters, in the same manner as dry seeds are given out at the Patent Office. Mr. W. A. Smith, United States Horticulturist, it is said, has now under glass in the garden near the Capitol grounds, hundreds of species of trees, flowers and shrubs, procured through the expedition to Japan, and to the South Seas, which will be distributed to the public this year. A considerable addition to the green houses is under way, in the shape of a large

octagon, to accommodate the rapidly growing results of Mr. Smith's diligence and scientific enthusiasm. The increased liberality of Congress to this highly useful enterprise will soon be felt throughout the whole country, and we hope our readers will not be backward in availing themselves of these facilities.

AMERICAN GRAPES.—It appears from a letter read before the last meeting of the Cincinnati Wine Growers' Association, by Mr. ROBT. BUCHANAN, one of the largest and most successful cultivators of the grape in that region, that the American grape is being substituted to a considerable extent in the vineyards of Europe for the native varieties, on account of its exemption from the prevailing disease.

AN EDITOR'S AUDIENCE.—Amid the trials incident to the life an editor, the following thoughts of a brother of the quill, bring some consolation; at least to him who feels that his audience fully sympathizes in his tastes and pursuits:

"Whom are you talking to?" Why, to a much larger audience than the best conversationist ever could boast of, and to more than ever listened to him during a month. How few clergymen, how few lecturers, how few public speakers of any description ever witnessed an audience half so large as that to which the editor of the smallest country paper preaches? How many clergymen are there who are accustomed to audiences of a thousand, and how few papers are there which do not strictly and literally find more than a thousand readers?"

IRON WIRE FOR BALING COTTON.—An Alabama correspondent of the *Charleston Courier* argues warmly in favor of this new mode of baling cotton. The principal advantage is that wire will not burn like rope, and, burstings, scatter the cotton to the flames and the wind, causing the destruction of every other bale within its reach. Cotton bound with wire, moreover, could scarcely be made to blaze, and if combustion be carried on at all it must be in a smouldering condition. The wire would hold the cotton more firmly than rope, in a compact mass, so that air could scarcely reach the parts on fire. The danger from the devouring element being less, the insurance in store or on shipboard ought to be reduced. Wire also is cheaper and lighter than rope, and could afterwards be used in baling up goods or for other purposes. It should be very malleable and galvanized or dipped in coal tar, so as to prevent the possibility of its rusting. Like rope, it can be adjusted to any sized bale, both in packing and compressing.

#### IMPHEE, OR AFRICAN SUGAR CANE.

THERE is none of the seed of the Imphee for sale here, at present. Mr. WRAY is testing all his varieties on the plantations of Gov. HAMMOND, of South Carolina; and hopes to be able to supply an abundance of seed the coming fall.

BLOODED HORSES IN TENNESSEE.—The Nashville *Union* states that the Tennessee Agricultural Bureau, has instructed the Secretary to prepare a "History of the Blooded Horses in Tennessee." The materials for this history must mainly come from those who have been engaged in raising this stock.

## PRESERVING FRUIT FOR WINTER.

If the people of the South ate more Fruit and less Meat, they would be far healthier, especially during the long-continued and debilitating heats of summer. At this season, fruit is an absolute necessity to all who know its value; but, in the winter, it deservedly ranks as one of our highest luxuries. It is very important to know just how to preserve it in the highest perfection, and a few hints may not be unacceptable. The common method of putting up in cans is well understood; but owing to the difficulty of entirely excluding the air, it very often fails of accomplishing the desired end. A Mr. DAYTON, of Nashville, Tenn., has put it to practice a new and improved method of hermetically sealing cans, which will be a great acquisition to housewives, if the apparatus which he uses can be easily and cheaply applied. He puts fruit or vegetables in cans similar to those of Arthur's patent, (glass are best for all purposes); and, after heating the cans and contents to about 160°, they are sealed up in the ordinary way. A small hole is left in the top of the can, allow the escape of the air, over which is placed a piece of India rubber about the size of a dime. The exhauster is then placed on the top of the can and over the rubber, and a small piece of sponge, saturated with alcohol, is lighted and thrown into the exhauster. The combustion of the alcohol consumes every particle of air in the exhauster in a second; the aperture in the top of the can then becomes effectually closed by the piece of India rubber, and the contents will be preserved perfectly fresh and natural. Another advantage of the exhauster is that it enables persons to test their cans and ascertain whether they are airtight, which is absolutely necessary in order to preserve fruit or vegetables. If Mr. DAYTON, will now furnish the air-exhausters at a reasonable price, we can have fresh fruits and vegetables all the year round.

NOTES OF THE WEATHER FOR APRIL.—Lowest point of the thermometer 30°. Highest 78°. Range 48°. Monthly mean 55.7, while that of February was 57.0; the lowest and highest points being exactly the same for both months. Such a remarkable freak of nature will, perhaps, not happen again in a century.

Amount of rain during the month 3.36, as follows:

On the 1st.....	.60
" 6th.....	.10
" 9th.....	.20
" 18th.....	1.27
" 19th.....	1.15
" 25th.....	.06

We specify the days for agricultural reference.

There were six frosts, viz: on the 3d, 7th, 8th, 15th, 20th and 22d.

On the 7th the thermometer was 2° below freezing. The fruit was generally killed and much of the early wheat cut down.

Seventeen out of the 30 days of April, the thermometer was below frost temperature.—*Savita Georgian.*

BONES AS A MANURE.—A late number of the *Country Gentleman* has an elaborate article by Levi Bartlett, of N. H., on bone manure. He concludes that there is no other manure whose effects are so lasting as an application of ground bones. Besides the increase of crops, he says it supplies phosphate, which the grasses generally lack, on old and long grazed fields in New England, and causes what is called "bone disease" in cattle. Mr. W recommends that the bones be pounded, and thus broken to

pieces, boiled or ground, and then spread evenly over the soil, and mixed with it. He has a field that was thus dressed years ago, and the effect is yet very perceptible on clover.

## BOT-FLIES AND THEIR YOUNG.

ENTOMOLOGY presents few facts for the consideration of the husbandman more worthy of his study than those which relate to the propagation of bot-flies, and to the nourishment and growth of their young. They belong to the dipterous, or two winged order of insects, having the generic name *astrus*, which is the Greek word for stinging, or exciting. The vowels o and e united form the first letter in the name *astrus*. The bot-flies which we shall attempt to describe are the *astrus gasterophilis equi*; or *hemorrhoidales equi*, which are the stomach bot, and fundament bot of the horse; the *astrus bovis*, or ox-bot, which is oviposited in the back of the animal; and the *astrus ovis*, or sheep bot, which is oviposited in the nostrils, and fully matured in the frontal and maxillary sinuses.

These flies appear to inhabit all countries where horses, camels, horned cattle, deer and sheep are known to exist; and without the aid of the latter for rearing the young of the former, it is probable that these flies would soon become extinct. The perfect insect lives but a few days; and where the horse-bot has been hatched and reared artificially, it was a pupa only 35 days. (see *Genessee Farmer* for 1841, p. 39.) Ten months of the twelve which constitutes the life time of this tribe of insects are spent in the warmer habitation of a larger animal, and they are thereby admirably protected from all external injuries. It is obvious that those which grow in the backs of cattle and in the heads of sheep and deer, subsist exclusively on the tissues or secretions by which they are surrounded; and there is good reason for saying that horse-bots, whether in the stomach, or rectum, which have their heads deeply buried in the mucus of the lining membrane of the alimentary canal, and fastened to it by natural hooks made for that purpose, draw their nourishment, not from the crude vegetable contents of the stomach and bowels, but from the more nutritive blood or secretions of living parts. Their only means of escape after reaching maturity, is to let go their hold on the mucus membrane, and pass along with the nutritive matter out of the stomach, and with the fecal matter out of the big intestine. If they fed on the contents of the alimentary canal, they would be so harmless that nature would not take the pains of making the horse so uneasy, so unhappy, when the stomach, or fundament fly attempts to oviposit on his legs or hips. Instinct prompts the last named fly to lay its eggs on the lips of the horse, which causes the animal to throw his head about, and try every way to escape his tormentor. This insect is smaller than the bee-like fly which oviposits on the legs and sides of the horse, being a half inch long, and having brown, unspotted wings, a dark abdomen, which at the base is white, but reddish yellow at the extremity. The larva or maggot of this fly is distinguished from that of the *gasterophilis*. (stomach-bot) by having two rings less on its body; its hooks longer

and sharper, and being of a lighter color. It does not always pass at once to the rectum, but some times fastens on the stomach, where it is found in the Spring. When near the fundament, injections of currier's oil brings away these bots without difficulty. Dr. Leach makes the *Gasterophilus* into a separate genus, of which he describes five British species; but whether there are more than one species in this country, or whether some designated as distinct species are more than varieties, it is not necessary to our present purpose to inquire. The well known stomach bot-fly is about seven lines in length, its general color is a clear yellowish brown, its head broad and obtuse; its thorax has a greyish color; its abdomen is a rusty brown, with a tinge of yellow, and has a series of dorsal spots; its wings are whitish, with a black undulating transverse fascia behind the middle. The female secretes a glue-like substance with which she fastens each egg to the hair; which, however, the moist lips and tongue of the horse readily remove and from the latter, it passes into his stomach with saliva, water, or food. The larva is soon out of its shell, has fifteen wings, many spinelets, and a tough skin. and is, at maturity, from twelve to fifteen lines in length. Its thickness is about a quarter of its length; while it is favored with two hooks one on either side of its mandibles, to fasten its head and anchor its body to the lining membrane of the stomach.

A few of these internal parasites appear to do little, or no appreciable injury to a horse, under ordinary circumstances; no more than do a few lice or ticks on horned cattle. But where one takes no care to keep down their number, his horses are in peril.

Our esteemed correspondent "F. J. R." who has an article on this subject in the last *Cultivator*, appears to believe that because the maggots of flies take in their food by suction, they are incapable of making their way through the compact tissues of the stomach, skin, and muscular substances. Other writers have advanced a similar idea, but it is erroneous. That the larva of common flesh-flies which subsist on the flesh of dead animals, and are so troublesome to housekeepers by their depredations on meat; steadily work their way through the hard cellular tissue which surrounds fat, and the fascia of muscles, is known to every observer; and these blowing flies too often oviposit on bad wounds, sores and ulcers, as well as on the bodies of persons in the last stages of fatal disease, not to have the fact equally well established and that their young penetrate living tissues also. The following account, more at large, may be found in Kirby & Spence's *Entomology*, page 109: "On Thursday, June 25, died at Asbonby (Lincolnshire) John Page, a pauper belonging to Silk Willoughby, under circumstances truly singular. Begging bread and meat from door to door, which, when he received more than he would eat immediately, he stored between his shirt and skin. Having a considerable portion of this food in store, so deposited, he was taken unwell, and laid himself down in a field in the parish of Scredington—when from the heat of the season, the meat soon became putrid, and was struck by the flies. The maggots devoured not only the inanimate pieces of flesh, but also the living flesh of the man; and after he was accidentally found by the inhabitants, and they cleared away these shocking vermin, he was conveyed to Asbonby, and a surgeon procured, who said it would probably prove fatal." Page lived but a few hours, having maggots of an enormous size crawling both in and over his body.

There is every reason to believe that maggots produced by the bot-fly would find as little difficulty in perforating the stomach of a horse, if so inclined, as did those that made their way through the skin, abdominal muscles, and peritoneum of this live pauper; and, therefore, it is un-

philosophical to assume as F. J. R. does, that an empty stomach or its gastric juice will, strangely enough, digest the stomach into something like a honey comb, and thus enable bots to pass through it. To place the fact that bots sometimes pass through holes made in the stomach of a horse on record in this work, which may be of use for future reference, we copy the statement of the Rev. Dr. Dewey of Rochester, N. Y., from the April number of the *Genesee Farmer*, 1841:

"I once saw in the stomach of a fine horse that had died from their action, multitudes of bots sticking into the coats, and many of them had pierced through that organ, so that on scraping them off with a knife the liquid matter of the stomach passed through its coats.\* Those bots were large

[\* It is contended by many able writers on this subject, that the coats of the stomach are never pierced through by the bot until after life leaves the animal. There is not much uncertainty connected with this branch of the matter.—JUNIOR EDITOR]

and strong, and of a deep flesh-color." Prof. DEWEY is well known by his scientific contributions to *Silliman's Journal*; and no man's word will go farther than his.

Not to do these comparatively long-lived maggots injustice, we are constrained to say that their attacks on the muscular coats of the stomach as food are rare, and it is probably only when they, unfortunately, exist in great numbers that they are driven to the necessity of killing their foster-parent, and thus jeopardizing their own lives. Nothing is plainer than the fact that, were bots to destroy a horse within two, three or four months after they attach themselves to the inside of his stomach, every one would inevitably perish before it became a pupa or fly. They want a warm nidus and their daily and appropriate food at least nine months. A dead carcass is soon cold and its flesh dissipated. Hence this whole family of insects generally destroy their young when they kill their horse, ox, sheep, deer, camel or other beast that supports their offspring.

To reduce the number of bots in the stomachs of our horses, we make it a point in our stock economy to wash off all nits, with warm water, from our horses, as soon after they are oviposited as practicable. This prevention is simple, plain, and any servant can practice it. With some knowledge of medicine, and some experience in the care of horses, we are constrained to say that our faith is feeble indeed in any internal remedy for bots.

The *Ox-bot-fly* or "*warble*" of some English authors, (*Astrus bovis*) resembles a small humble-bee, from which it is distinguished by the want of two under wings; it is larger than a house fly, has brown unspotted wings, a black band on the abdomen, which is covered at the end with a reddish-yellow hair. For piercing the skin on the backs of cattle, actually boring, as with a gimlet, a hole large enough to insert her ovipositor and an egg, the female has a very curious apparatus. It is made of four pieces which slip one into the other like those of a telescope, the innermost of which is armed with five sharp points, three of which are longer than the others. She never puts more than one egg in a hole; and rarely so many in the skin of one animal as to endanger its life. Aristotle, Pliny, Virgil and many other ancient writers give accounts more or less truthful of the attacks of this gad or gad-fly. All the old English, and half of the modern authors, including both Loudon and Wilson, who have treated on "gerponics" advise farmers to have slip ox-yokes so that oxen when stung by the gad fly in the field, may be cleared at once, and allowed to run straight ahead (as it is said they do under such circumstances) and not break the plow, or cart. This is not all fancy; for every one who has been much about cattle has seen them raise their tails to a line horizontal to their backs, and run violently without any apparent cause. VIRGIL

thus describes a rural scene of this character, and the exciting cause, as translated by Kirby:

"Through waving groves where Selo's torrent flows,  
And Alborno, thy green Ilex grows,  
Myriads of insects flutter in the gloom,  
(Oestrus in Greece, Asilus named at Rome)  
Fierce and of cruel hum. By the dire sound,  
Driven from the woods and shady glens around,  
The universal herds in terror fly;  
Their lowing shakes the woods and shakes the sky,  
And Negro's arid shore—"

Stinging insects are more numerous, and, apparently, poisonous in some countries, even of the same genus; and Aristotle was true to Nature when he divided them into two classes—one which carries stings *before* (in its bite) and the other, like honey bees, which carries its sting *behind*.

Keeping cattle from woods, is the best way to avoid injuries that result from this often troublesome insect.

Sheep, however, suffer more than either cattle or horses, from the bot fly called *astrus ovis* which oviposits in their nostrils. Kollar thus describes this species of the *Cestredæ*. "The thorax in the winged insect is brownish black, and dotted with white, the abdomen white spotted with gray and black. The fore head looks ash gray, and is covered with small deep punctures, the wings are shining and dotted at the base. It lives in the vicinity of woods, in sheltered, shady places, where it is found in great numbers in warm summer days. It annoys sheep very much; and in order to escape its attack, they carry their heads low, and thrust them under the belly of the next sheep. The females lay their eggs in their nostrils, and larvæ creep up into the frontal sinuses, along the pituitous tunic, to which they attach themselves by means of two hooks; otherwise they would be easily ejected by the sneezing of the animal." Sneezing, deflexions from the nose, and a staggering walk are the most prominent symptoms of bots in sheep. They are so dangerous, and so near the brain that instinct tells the parent fly not to lay any more than four or five eggs in the nose of any one sheep—a greater number would hardly fail to destroy the sheep before the maggot was half grown, and when, unlike the young of flesh flies, it had six months longer to live before it could possibly reach its pupa state.

In addition to keeping sheep out of woods pastures, it is well to smear their noses with tar, which is offensive to the bot-fly, as a preventive.

Speaking of the low regions of the torrid zone, where the air is filled with millions of mosquitoes which render uninhabitable a great and beautiful portion of the globe, Humboldt and Bonpland, observe that to these may be joined the *Cestrus Hominus*, which deposits its eggs in the skin of man causing painful tumors. Gruelin says it remains six months under the skin of the abdomen, penetrating deeper if disturbed, and becoming so dangerous as sometimes to occasion death. The fly he described as being of a brown color, and about the size of a common house fly; so that it is smaller than the rest of the genus.

L.

**WATER FOR CALVES.**—Accident, says a correspondent of the *Ohio Cultivator*, recently taught me what, till then, I did not know, viz: "That calves, while fed on milk, need free access to water; I had supposed the milk (consisting of their entire food) was enough without water. But in changing my calves from one pasture to another, they passed a water trough and drank heartily. I acted on the hint, and have since supplied them, and find they need water as often as older cattle. No day passed without their using more or less."

#### MISSISSIPPI STATE AGRICULTURAL Society.

THE *Daily Mississippian* has the following:—"Pursuant to the call made for a meeting of the friends of agricultural improvement in the city of Jackson, a meeting was held in the Senate Chamber on the night of the 21st, and organized by calling Hon. W. McWillie to, the Chair, and appointing M. W. Philips, Secretary. Whereupon, after a full and free consultation, it was deemed best and prudent to revive the Society as organized February 3, 1854, and that the constitution and names of officers be published. It was ordered that this Society hold a Fair during the month of November next, and that a petition be presented to the honorable Legislature of the State asking for such aid in the promotion of the cause as in their wisdom may be deemed proper, praying that twenty-five hundred dollars be donated to said Society for said object. Further, that the use of so much of the State lands lying east of the Capital as may be deemed necessary for Fair Grounds be granted to said Society. So soon as the action of the Legislature be known, the Secretary will call a meeting of the Executive Committee to determine upon a Premium List for the Fair and the time to be named for said Fair.

### Horticultural Department.

#### MORAL INFLUENCE OF GARDENING.

To most minds, it is a sufficient argument for gardening that it furnishes a rational, pleasant and healthful occupation; that a well kept garden is an ornament to one's home, and a comfort to his family. Has it not the additional attraction of a moral influence? That it has might be inferred from the fact that every employment gives a tone and bias, more or less marked, to the character of him who pursues it. The kindred pursuit of farming, it is generally conceded, exerts a decided and happy influence on the character: why may not the same be true of horticulture?

It is obvious that this employment withdraws a man from many scenes of temptation. It does not send him into the haunts of vice in cities, nor into places of sharp traffic where every high and noble principle is sacrificed to the lust of gain. It does not often bring before him the dark side of human nature, and familiarize his mind with gross wickedness, and stimulate his passions to indulgence. From his daily path, he seldom hears profane oaths, or licentious jests, or enticements to intemperance. His calling will not, indeed, ensure the preservation of a virtuous character, yet it is eminently conducive to that result.

Gardening brings one under the favorable influences of home. This is a positive advantage, and it accrues both to him who follows gardening for a livelihood and to him who makes it the recreation of his leisure. The working-man pursues his daily toil within sight of his own gables; his wife's cheerful song is wafted out to him through the open casement; his children, some of them labor at his side, and others soothe him with their innocent prattle. He who pursues gardening from a love of it, is not apt to spend much of his leisure in other and questionable amusements. The early morning finds him among his trees and plants, and when the day's business or study is ended, he hies to his garden as the most delightful refuge.



from fatigue and care. The pursuit of office or wealth is laid aside for the study of nature; the society of the street and market place is exchanged for the society of home. Every man will have amusements of some kind, and his character is often determined, for good or for evil, by the nature of his amusements. Gardening affords a rational, innocent recreation, and one which carries with it the salutary influences of home.

This pursuit tends to repress evil passions. One can not get on at all while in a state of excitement. The employment requires patience, sober thought and careful manipulation. And there is something in the very aspect of a garden adapted to soothe irritated feelings and to promote peace of mind. Graceful trees seem to wave a welcome to the gardener's footsteps; flowering plants, holding up their little cups to catch the dew, seems to smile upon him as he passes, and heavy laden fruit trees drop their ripe products into his hands, as if to reward him for his care:

"Yes! in the poor man's garden grow  
Far more than herbs and flowers;  
Kind thoughts, contentment, peace of mind,  
And joy for weary hours."

"A garden is a place of healing to the soul. It would seem as if from the growth of leaves and flowers and shrubs, there exhaled a silent dew, which brought comfort to the heart blistered in the sultry suns of life. The intercourse of men and woman is often harsh and chafing. Little irritations, like nettles, lie hid along the paths—but the silent growth of a garden communes without speech, and every leaf becomes a leaf of healing."

This pursuit fosters a habit of industry, and so benefits the character. A garden requires daily care. The seeds sown, the bushes and trees planted, must be also watered and pruned, and trained, and kept free from weeds and innumerable insects. A little neglect, and all is lost. That notorious and busy personage, who is said always to find some mischief for idle hands to do, we verily believe passes by the gate of every gardener, in despair!

This pursuit tends to cultivate a feeling of dependence upon an overwhelming Providence. When the gardener has prepared his soil, planted his seeds and his trees, he can do little more. He must wait for a higher power to waken into life the seed-germ, and to excite into active growth the roots branches of the tree. It is not human skill that makes and the radicle descend and the plume rise; that causes the sap to flow, the roots to push out their mouths into the soil in search of food, the buds to expand, the branches to extend, the trunk to enlarge, and flowers and fruit to follow each other in succession. Human power does not bring down the needful rains and dews, neither does it give or temper the light and heat of the sun. When the stated order of things is interrupted—when the showers and dews are withholden, and the thirsty earth is parched with drouth, or when the rain descends in torrents, or the sun hides his face, and blighting winds and untimely frosts descend—how entirely helpless is man! And when all circumstances combine to favor the gardener's operations, how can he help seeing the hand of Providence—a Hand co-working with and blessing him continually?

And this suggests the collateral thought, that gardening tends to lead the thoughts heavenward. The objects, with which the gardener is daily familiar are peculiarly the works of God, and are suggestive of his power, wisdom and goodness. A clerical friend, who sometimes indulges in a vein of pleasantry, writes us that he now coming to find some meaning in horticulture. Formerly he got no further than to see the wild symbolical in quack-grasses and Canada thistles; the affections in clinging vines; the understanding in sober rows of well-meaning vegetables; fancy in the flaunting tulip; calm satisfaction in the well-

grown turnip; wise intelligence in a successful cabbage-head; and a sympathetic influence, a power of melting, even to tears in the onion! But now, he saw something more; something, indeed, to amuse him, but more to excite sober reflection. He could not help "hearing the voice of the Lord, walking in the garden in the cool of the day." He saw a divine Hand rolling onward the seasons in steady succession, and sustaining all the forces of nature. He thought the undevout gardener a mad-man, no less than the undevout astronomer.

As the gardener beholds all vegetation reviving in Spring, his thoughts are carried forward to another season when his own body shall awake in new and immortal life. He sows his seed in the spring, assured that he will gather its fruit in the autumn; how natural the reflection that from the seed sown in this life, the spring-time of his existence, he will gather the fruit in the harvest-time of the Future life. He beholds around him, not only what is necessary for his subsistence, but a superabundance, untold gratifications of the senses and the intellectual tastes, tokens of the boundlessness of Divine power and love; how natural the reflection that the future abode of the good will be, in beauty and enjoyment, far beyond all human conception.

A D G,  
[in Country Gentleman.]

#### WATERING STRAWBERRIES.

In general we are opposed to the system of watering plants which some persons so much affect. Strawberries, however, require water in large quantities, and from our experience we are convinced that it is every way proper to give them water constantly and liberally even in the wettest seasons. It has been our habit for many years to water our strawberry plants from the time that they bloom until the fruit is all gathered, and the beneficial results have been so marked and striking, that we cannot hesitate to recommend it to every cultivator. The advantages may be briefly stated, as securing much larger berries and increasing the crop fully threefold. Where water is freely applied, almost every bloom will bring a berry, and the quantities which can be gathered from a small plantation are really astonishing, to those who have never tried the experiment. Those of our readers who doubt, are earnestly requested to try an experiment of watering half their plants, and withholding water from the other half, and whatever may be the character of the season, whether wet or dry, the results will be of the most surprising character.

The water should be poured from a sprinkling pot and should be plentifully bestowed. A slight application will do very little if any good. It may be applied evening or morning if convenient, but never during the heat of the day, and all the trouble and expense will be amply compensated by the grateful return of improved fruit and an increased crop.—*Southern Planter*

#### BENE PLANT.

The following, from a correspondent of the Patent Office, may contain the information desired by H. P. L., of Alabama:

"In 1843, I sent sixteen bushels of seeds of the Bene plant (*Sesum orientale*) to a mill in Cincinnati, to be manufactured into oil. It yielded thirty nine gallons of clear oil, and about 5 quarts of refuse oil, or about 2½ gallons to the bushel.

"In consequence of the mill imparting the flavor of flax seed, I could not use it as a salad oil, for which purpose I am confident it would be superior, when pure, to the adulterated imported olive oil. I used it, however, as a substitute for castor oil, and gave a considerable quantity of it away for that purpose. All who used it praised it

highly, both for its gently purgative effect and from being free from the nauseous taste peculiar to castor oil.

"I cannot state with certainty how much seed this plant will produce to the acre, but believe that 20 bushels is a moderate estimate.

"The leaf of the plant is an excellent remedy for bowel complaints in children, and also in adults. For this purpose two or three leaves are put in a tumbler of water, which they immediately render mucilaginous, but impart no disagreeable taste. The negroes cultivate it for food, using the parched seeds with their meats.

"I consider it so useful that a few stalks at least should be raised in every garden. And I believe it will soon be extensively cultivated for manufacturing oil, yielding, as it does, about a gallon to a bushel more than flax-seed oil.

"I doubt whether it will mature well north of latitude 36°. It should be planted as soon as the frost is out of the ground. Poor land is best suited to its production, as it branches too much in rich soil, because the pods are more likely to shatter from the branches than from a single up-right stem. The seeds should be planted in drills 3 feet apart and 6 inches distance along the drill."

#### KEEP FRUIT TREES STRAIGHT.

TREES in an open inclosure often acquire a leaning position from the prevailing winds. This should not be suffered beyond a certain stage of the tree. When as large as one's wrist, they should be set up erect, and, indeed, thrown into the wind at an angle of ten or fifteen degrees; in order to bring them ultimately into a straight position. This is best done by obtaining crotched limbs from the woods, eight to twelve feet long, and planting the butt end which should be sharpened, on the ground, and the crotch end either against the trunk, immediately beneath the branching point, or against a large outer limb, if more convenient, securing it from chafing in the crotch, by a padding of straw, or litter, and setting the tree at once up to the desired angle of elevation. Loosen, also, the ground on the windward side of the root so that it will not bind, and the work is accomplished. Let this be done when the tree begins to make its summer growth, or soon after leafing out. One season, if the tree is thrifty, will be all that is required. If however, it be obstinate repeat the trial another year. The remedy is sure. Even large trees, which have acquired a permanent lean, may be thrown into an erect posture, by loosening the earth the root, and occasionally cutting off an ostinate large root, without injury to its growth, and thus be made slightly. An erect tree will be longer lived, and more fruitful than a leaning one, and not half so subject to casualty as if left to its own guidance.—*Exchange.*

VEGETABLE GARDEN.—The earliness of crops is much accelerated by the application of thoroughly decomposed manure at the time of sowing; the matters for absorption are thus presented in a highly concentrated form to the roots, and the plants more speedily at maturity. Much also depends on the state of the soil at the time of sowing. It is surprising that so little attention is given to draining by those who are interested in securing early crops; drained ground is always in a fit condition for working much sooner than that undrained. Draining, also, by the greater efficiency it confers on water as a solvent of plant food increases the available supply of the soil, and the rapidity of this supply depends upon the aggregate surface of particles presented to the dissolving agent. Reddise a soil, therefore, and the roots of plants will have an increased passage. Hence the benefit of repeated culture, such as digging, forking, hoeing, &c., and hence, also, the beneficial influence of frosts on soil. Frost is not a fertilizer,

but as water expands in freezing, and as the crystals of ice pervade the entire substance, a diminution of the particles follows after thawing, increasing the soluble surface. So far from diminishing the necessity of applying manures, the increased power of manufacture thus conferred on the soil must be accompanied by an increased supply of the raw material, if a permanent benefit is to be realized.—*Exchange.*

#### THE CURCULIO--QUERIES.

EDITORS SOUTHERN CULTIVATOR—Permit me to ask a few questions:

1st. The Curculio punctures the young fruit and deposits its eggs; the worm then hatches, lives upon the fruit and grows with its growth and strengthens with its strength; and arriving at maturity during the maturity of the fruit, cuts its way out and enters the ground to pass through its transformations.

The time of its various stages of existence in the form of worm, chrysalis and butterfly, is fixed (such is the case with other insects.)

If those facts are true (as they are supposed to be) how then will a curculio, depositing a portion of its eggs on the Early Tillotson (ripening the middle of June), and another portion on the Baldwin's Late October, find in both the proper condition for maintaining its young?

Or, if it be said that it raises two or more broods the same season, will not the October Peach be too old firm by the time the brood from the early peach is ready for its next attack?

2d. What becomes of the Curculio when all the stem fruit is destroyed? and how does it exist and propagate its species through the season?

REMARKS.—The Curculio very seldom attacks Peaches; besides, the early as well as the late peaches bloom nearly at the same period, and their development during the early part of the existence of the fruit is nearly the same. Thus the Curculio might deposit the eggs in either and cause them to drop, never troubling himself about the season of ripening. We understand, however, that the Curculio is not found in Florida. The reason given is that the summer is so long that the chrysalis will pass through all the stages of transformation and come out in the autumn, when there is nothing for him to deposit as eggs on, and consequently the breed will be destroyed.—*Eds.*

#### TREES, INSECTS, &c.

At a late meeting of the New York "Farmers' Club," Mr. PELL, the great orchardist, read a paper on Trees, from which we take the following extracts:

The destruction of insects that prey upon our trees must not be indiscriminate. Many wage war upon moles, which ought not to be destroyed. In their subterranean excavations they destroy thousands of grubs. The destruction of crows multiplies noxious insects that do inconceivably greater damage to our corn-fields than the crows, never permit them to be killed. The Hessian fly, and fifteen thousand other insects, so formidable in our wheat fields, may be outwitted by steeping the seed, and sowing early in well tilled ground.

The few that escape will be devoured by their relentless enemy, the yellow bird. The moth (*gortyna zea*) destroys our Indian corn by penetrating the stalk just above the surface of the ground—and the *agrotis segetum*, he tender roots. My remedy is late planting.

The wire worm destroys our grass fields. To prevent its depredations I use lime freely as a top dressing—from

one to two hundred bushels to the acre. The beetle destroys our hickory trees; the elaphidion our oaks; the canker worm our elms; the hylotus our pine trees. In 13 days last August, 31 workmen destroyed, in a vineyard, 41,000,000 of the eggs of a small and very destructive moth, which would have hatched in sixteen days thereafter, and might if left undisturbed, have produced three or four more generations the same season to be nourished by the vine. I have seen flies deposit their eggs on the living body of a caterpillar.

Lumousts said that three or four flies will devour an ox in as short a time as several lions, by each producing 30,000 maggots. I am opposed to the destruction of beetles, with one exception, because they consume an immense amount of decomposing vegetable matter which, but for them, would destroy the salubrity of the air we breathe.

I cherish wasps; they put an end to the existence of countless thousands of spiders and similar insects. The tiger beetle should on no account be destroyed; he is the enemy of all other insects, and kills them indiscriminately. Hornets, dragon-flies and ants should be protected, or the land would be over-run with other insects.

I have often heard it said a cold winter destroys insects. I thought so until last spring, when I examined the chrysalids of many insects that had withstood in exposed situations the preceding intense winter. I invariably found them full of life, though the thermometer had frequently been below zero. From whence do they obtain the necessary temperature to support life? Would not complete solidification of the fluids necessarily produce death?"

In reference to this matter, a member observed that we know not the absolute amount of heat necessary to support vitality, and that insects had revived after three years, that had been brought from the Cape of Good Hope perfectly dried and with a pin stuck through them.

#### ORNAMENTAL EDGINGS AND HEDGES, FOR The South.

EDITORS SOUTHERN CULTIVATOR—Permit me to say a few words in regard to our gardens and front yards. How stiff and tasteless it looks to see a small piece of land cut up in all imaginable and unimaginable mathematical and fantastical figures lined with planks or masonry. The beds are also thrown up high and dry, while the paths are as narrow as if made for the perambulation of chickens only. How often have I exclaimed "Dutchman's work."

Planks and bricks were unquestionably introduced in olden times, when it was difficult to obtain a more tasteful article for edging our flower gardens. Now, however, suitable plants for edgings or ornamental hedges can be had in abundance, and consequently the planks and bricks must soon disappear.

The first step in arranging a garden is the thorough preparation of the soil. But how is it done in nine cases out of ten? An old crippled negro, unfit for any other work, is put to *scratching* the ground with a hoe, and in order to give this work a more honorable name, it is called digging. How can it be expected that any thing can grow by such work? and still the owner is always uttering forth his complaints against the nurseryman or seedsman because the plants will not thrive. No, throw aside the hoe and get a good *spade*, work the soil at least twelve inches deep, (though twenty inches is better) pulverize it thoroughly, and work in some manure, then lay off the walks. The main paths should always be wide enough

for three persons to walk abreast, while the side paths will answer if two persons can walk abreast. When this done, proceed to plant the edges of the flower beds with suitable plants. The beauty of such an edging consists of its being as thin as possible and never more than six inches high, and whenever needed, should be kept in the proper shape by frequent trimming with a hedge sheers.

I will here enumerate a few of such plants as answer well for this purpose:

*Buxus Suffruticosa*, (Dwarf box) is known to every body, and makes an excellent bordering; but requires strong clay soil; in fact, it is useless to expect it to do well in sandy land, unless it has a strong clay subsoil.

*Poterium Sanguisorba*, (Burnet)—As we are often blessed with ridiculous common names, I would mention that this plant is often called "*Watermelon Geranium*." It is a low perennial plant, with a close foliage resembling the leaves of a rose bush, though much smaller. It thrives finely in sandy soil, and produces a very neat bordering the first summer from the seed. In order to look nice, it should not be suffered to run to seed, but the flower stems must be cut down whenever they appear.

*Rosa Lawrenceana* (Peachy Rose)—makes a very close and neat edging, which, however, needs frequent trimming. It should principally be employed for borders at the main walks.

*Rosmaricus Officinalis* (Rosemary)—Few plants form a more suitable edging on sandy soil, to which it is perfectly adapted. It will not need trimming more than once or twice a year. A well kept little hedge of Rosemary in my garden was for many years the object of great admiration to all visitors.

*Santilena Chamocyparissus* (Coron Lavender, or Fringed Rosemary) is a small evergreen shrub of very slender growth. The foliage is very delicate, though not of a pleasing color, it being more gray than green. It is excellent for edging borders and can be kept very thin, not more than an inch thick, but requires frequent trimming. Few plants will thrive better in poor sandy soil than this.

A good many more could be enumerated, but the above are the most suitable.

I will now proceed to mention such shrubs as can be recommended for larger ornamental hedges:

*Cydonia Japonica* or *Pyrus Japonica* (Japan Quince)—Though a deciduous shrub, nothing can be more strikingly ornamental than a hedge of this kind during its season of blooming. It was in the garden of the "London Horticultural Society," that I, for the first time, saw such a hedge in full bloom, and nothing could look more like a sheet of fire. Its quality of blooming very early in the season (in March) when the garden is rather dreary-looking, makes it so much more desirable. Besides, it will answer perfectly for an outside hedge, as, when properly kept, it is very protective. Such a hedge may easily be trained from three to four feet high.

*Euonymus japonica*.—This shrub, rather too tender for the North, will unquestionably before long become one of the most desirable plants for a Southern ornamental hedge. As yet, it is only seen in solitary specimens as a bush, but whenever propagated in abundance, its dense compact form, beautiful glossy green color, and its quality of thriving well in any soil, will soon make it indispensable in every Southern garden. It needs but very little trimming, as its natural form is somewhat tapering, and it will, if desired, form a hedge or screen, ten feet high. For the latter purpose, the plants may be set two feet apart; for smaller hedges one foot apart.

*Gardenia Florida* (Cape Jasmine)—We have a great advantage over Northern gardens in being able to grow this beautiful shrub in perfection. When properly cultivated and trained it forms a most beautiful hedge, but

such a hedge is seldom seen. Why! not the slightest care is bestowed on a Cape Jasmine. There it grows up to a large spreading unsightly bush, merely for want of being properly trimmed. In fact, the Gardenia needs a good deal of trimming, in order to keep it thrifty and healthy looking. The most suitable time for trimming it is in July, immediately after its flowering season has passed, it will then bloom again in the Autumn. July is also a very good season for transplanting the Cape Jasmine, provided it can be protected against the direct rays of the sun.

*Juniperus virginiana* (Red Cedar) is an exceedingly handsome hedge plant, but will not bear transplanting well, when taken from its wild state. The best way is to raise them from the seed, and as I have had several inquiries from correspondents in regard to this matter, I will here describe the way of doing it. The seed lies long in the ground and seldom comes up until the second Spring. I once had some chickens roosting in a Red Cedar tree, and by scraping up their droppings and applying that manure to some trees, little Red Cedars came up in abundance. This led me to put away some of the berries the next fall in a box, where I mixed it with some fresh hen-house manure, and left it all winter. Early next Spring, I sowed it all in a moist shady place, and got plants in abundance. They should be transplanted when a couple of months old, say latter part of May, on a bed for nursing until big enough to be transplanted where they are to grow large.

*Juniperus suecica* (Sweedish Juniper) will also make a fine hedge from five to six feet high; propagated by cuttings and layers.

*Ilex* (Holly)—Several of our native Hollies will also make beautiful hedges, and should be raised as the Red Cedars. They are, however, somewhat more difficult.

*Pinus* (Spruce)—In localities of the South, where the different kinds of Spruce will thrive, they will make most magnificent large hedges and screens. The balm of Gilead (*Pinus balsamea*) and the Hemlock (*Pinus canadensis*) both of which grow spontaneously on the mountains of the South, are the species which are best adapted for this purpose; they must be raised from the seed.

*Prunus caroliniana* (Wild Olive, Mock Orange and Wild Peach)—All these common names are wrong, the true name being "Evergreen Cherry," to which family it naturally belongs. The adaptation of this shrub for a hedge and screen is well known, and has been mentioned in the "Cultivator" in some earlier number. It forms a most superb screen ten feet and more, but is only ornamental, and will never be a protective hedge. Should be planted one foot apart.

*Rosa*.—Many of our fine evergreen roses are excellently adapted to ornamental hedges. I will here name a few, whose peculiar growth makes them better fitted for this purpose than most others.

*Archeluke Charles* (China) for a large hedge, say six feet high.

*Camelliaflora* (China) the same.

*Carmine superbe* (China) for a small hedge; has deep colored small foliage.

*Louis Philippe* (China) for a middling sized hedge.

*Murjolin*—for a middling sized hedge.

*Anthrose* (Tea) for a small hedge.

*Julie Mausais* (Tea) for a small hedge.

*Hermasen* (Boarboon) for a large hedge.

*Julie de Lognes* (Noisette) for a large hedge.

*Ernestine B. reute* (Hybrid Perpetual) for a middling sized hedge.

*Giant of Battles* (Hybrid Perpetual) for a middling sized hedge. All the roses should be pruned often and closely, in order to make fine hedges.

*Spiraea prunifolia* forms a beautiful ornamental

hedge, blooming very early in the Spring, when it produces a most charming contrast to the fiery red *Cydonia japonica*. Should be pruned by midsummer in order to produce a close hedge that will bloom well. From four to five feet high. Propagated by cuttings.

*Thuja* (Arbor vite)—Has long been in use for hedges and screens. *Thuja stricta*, from Nepal, is the most beautiful species for that purpose, and should be planted from 12 to 15 inches apart.

This list of ornamental Hedge Plants could of course be increased considerably, for nearly all shrubs, even the Climbers can be trained into fine hedges, but this, I think, will answer for most purposes.

Hedges as well as Edging should always be planted in a single row. The hedges should invariably be trained conically, which is the most natural way, and by which, every Spring, from the bottom to the top will enjoy the benefit of air, sun, rain, dew and wind, and thus be kept beautiful all over.

ROBERT NELSON.

*Fruitland Nursery, Augusta, Ga., May 1857.*

### BOTS IN HORSES.

EDITORS SOUTHERN CULTIVATOR—In the April number of the *Southern Cultivator*, I read a remedy for Bots in Horses, over the signature of "W. B. Trotter." From twenty years experience, the examination of some score of horses after death, and various remedies and experiments, with various ends, my opinion is, the writers hypothesis will not bear the test of facts, as it regards positive symptoms, remedy and the operation or work of the bot. As it regards their origin, he is correct.

*First of Symptoms.*—He says after giving the symptoms, "If the horse has such 'you may be sure it is the bots.'" This positive way of writing may lead some into error, and cause wrong remedies to be given. After examining the number I have, with just such symptoms, I found I was mistaken in the opinion I had formed—in the place of remedies for the bots, I had administered for the colic, which was poison for an inflamed stomach. Inflammation of the intestines, lungs, stomach, abscess of the bowels, bots, colic, from such symptoms as given by the writer; hence I find it difficult to discriminate.

*Second.*—*The food for bots*, he says, "and feeds on the nutriment of the maw." Had he said, in the maw, it would have been correct, as I have found from actual examination.

He further says: "If the horse becomes heated by severe exercise, the worm will seize hold on the maw and commence eating it, and sometimes, in a few hours, will entirely destroy it, and death be the result."

I feel certain the hypothesis of the writer in the preceding paragraph would not have been written had he examined carefully the stomach or maw with bots on it. Out of the number I have examined with bots, not one did I find attached to the membrane or maw with the mouth. By a careful examination with a glass you will find no fang or nippers, or anything that will induce you to believe they can attach to the maw or stomach with the mouth, any more than earth-worms. They do not prey on the maw, but live by suction drawn from the juices in the stomach. But on a close inspection of the posterior you will find two fangs or hooks, similar to the sting of a bee, which can be brought together forming a focus which enables the grub to penetrate any substance not harder than wood.

I have taken a few from the maw and put them in a gill of good spirits of turpentine for 24 and 48 hours, and when taken out they appeared unharmed, and when placed on a pine board would adhere so as to require some force to free them from it. Nature has provided those hooks as a

means to ward off the danger of falling out of the stomach in the course of digestion. In the months of June and July the following year (being deposited the August and October previous on the horse in the egg) they, by the course of Nature, having been deprived of the nether appendage, are thrown off by the course of digestion. When once attached to the stomach (which is done as soon as they enter) they never relax their hold until forced by Nature.

I have seen them bedded in the stomach, having the appearance of young bees in the comb, their heads a fraction above the membrane of the stomach, when extracted forming cells, produced by partial inflammation from the smallness of numbers, upon the same principles of a tick bite on persons. Where the numbers are increased, and the horse well fed on corn, general inflammation ensues and gangrene; hence the expression, "They have eaten through."

I have never seen a horse die with bots that had been fed on grass or oats alone. Horses well fed on corn are more susceptible of inflammation than those on grass or which are allowed to graze.

I would give you my remedies and experiments on bots, &c., but am fearful of intrusion. Yours, A. P. R.  
*Salt Spring, Ga., 1857.*

P. S.—Do you know anything of the *Rio Mara*? Some 25 seed came to me for sale, from Messrs. May & Harris, of Spring Place, Ga. They stated that the leaves were an infallible cure for snake bite and an ornamental tree, &c.

#### FROST IN TEXAS, AND SOME REFLECTIONS Thereon.

EDITORS SOUTHERN CULTIVATOR—It is now 9 o'clock. The sun rose this morning with that peculiar majesty and beauty, which characterizes a lovely Spring morning. The same blue expansive vault encircled us above, as though a warm invigorating Spring morning was ushered in. But how deceptive are appearances. All else is changed, and "such a change." Now as I look forth from my window, I see the pride and beauty of the forest is gone; the tender grass and flowering herb, and the sturdy, stalwart son of the forest, are alike the sharers of one common fate. Though they have struggled long against their common foe, they are again locked in the cold embrace of the "Ice King," and their tender offspring, the leaves and flowers, are swept from them by his cold and icy breath.

Many conjectures have I, in regard to this withering simoon. There is a resemblance between this affliction and the scourge visited upon the Egyptians by the destroying angel of a sin-avenging God. It is sure, I believe, in the fixed unalterable laws of Divine wisdom. Nor, do I pretend to say, that this is a direct and special Providence. But permit me here to indulge for one moment in a sketch drawn from my own fancy; I will then compare this cold North Wind to the blighting influence of Northern fanaticism:

In its ice-like thralldom it has crippled and withered our Southern Institutions. Whenever, or wherever, the sun of our prosperity has gladdened our hearts, the cold withering breath of a jealous, envious brotherhood, has swept over us, paralyzing our efforts, like as the touch of the deadly "Upas tree," whose venom poisons every current, and lays its victim beneath its shade.

Where is California, with her gold, her fruits, her flowers? the withering breath of the "Ice King" has swept over her, and her fate is sealed. Where is Kansas, the land of strife? The "Ice King's" fetters bind her in his chains, whose locks and bolts are doubly riveted. I could ask where several other States are, that once blossomed under the genial sun of Southern skies, but alas the fierce

"Ice King" has bound them in fetters more strong than the Icebergs of eternal snow.

Now the great lesson to be drawn from this fancy sketch is simply this: That we of the South have greatly overlooked our safest policy, while the North as an agricultural people, have outstripped us, have been the wise husbandmen, have improved their soils, their stocks, their machinery, in short, their all (but fanaticism.)

We have been the dupes of a miserable system. Our motto being to make all we could from our rich virgin soil, exhaust its capabilities in a few years as we could, then off to the woods again, and so on, and on still; we have struggled without attaining our desired object, until now we are forced to lament our departed greatness, and to wish for the bright stars of the Southern Galaxy which we have lost in unequal combat, or an unwise and distorted policy.

Now, whenever Southern Agriculture shall take that prominent stand in the eyes of her people, that it should; when her sons, warmed now as they are by the genial rays of a Southern sun, shall eclipse in education, moral and intellectual, their brothers of the North, then, and not until then, may we expect the sceptre of our greatness to return.

The fault of our present situation is not so much to be attributed to what we have done as to what we have left undone.

The North has builded up her Agricultural Schools; she has extended her manufactures; she has whitened every sea with her Commerce, and last, though not by any means least, she has aided that powerful auxiliary, the Agricultural press.

Now these are things which, as Southern Politicians, Statesmen or Philanthropists, we have woefully neglected. Can we expect, let me ask, in any wise expect, a return of our former greatness, unless we aid the Agricultural press, that auxiliary alone which can mitigate the sorrows of the poor old field, or alleviate the pain of that suicidal and reckless course heretofore practiced by Southern farmers? I answer no, and one word of advice to my brother farmers, send your dollar and get the "*Southern Cultivator*," for if my parents have not taught me augury in vain, this year will be one that will be numbered with the famous list of short crop years. Yours, R. D. H.

*Boston, Rome Co., Texas, April 1857.*

A SIMPLE CURE FOR A SNAKE BITE.—Mr. Jno. Andrews, of this district, informs us that a few days since he was fishing; he had with him a small negro boy, who mistaking a mocasin for a stick, picked it up and was bitten on the thumb. Mr. A. had frequently been informed that his grand-father, one of our oldest settlers, who was a great hunter, had never failed to prevent any evil consequences resulting from a snake bite by washing the wound in water, and at the same squeezing out the poison. He, in this case, resorted to this cure. Holding the wounded member under water, he washed it for some time. The cure was complete; the thumb did not even swell. The bite of the mocasin is as much dreaded as that of the rattle snake. This statement may be relied upon. Mr. Andrews is a man of character.—*Darlington Flag.*

SCALDING MILK.—The Devonshire mode of managing milk, whether intended for the churn or otherwise, is to scald it immediately, as it is strained from the cow. After this operation, it does not sour so soon, even in summer; and if it is intended for butter-making, you have sweet milk for family use, after the cream is taken off. In winter the cream that is taken from scalded milk will not require more than 15 minutes churning to bring it to butter.



## INTENSE COLD---ITS EFFECTS.

For every mile that we leave the surface of the earth the temperature falls five degrees. At forty-five miles distance from the globe we yet behold the atmosphere, and enter, strictly speaking, into the regions of space, whose temperature is 225 degrees below zero; and here cold reigns in all its power. Some idea of this intense cold may be formed by stating that the greatest cold observed in the arctic circle is from 40 to 60 degrees below zero; and here many surprising effects are produced. In the chemical laboratory the greatest cold that we can produce is about 150 degrees below zero. At this temperature carbonic gas becomes a solid substance like snow. It touched it produces just the same effect on the skin as a red-hot oinder; it blisters the finger like a burn. Quick-silver or mercury freezes 40 degrees below zero; that is, 72 degree below the temperature at which water freezes. This solid mercury may then be treated as other metals, hammered into sheets or made into spoons; such spoons would, however, melt in water as warm as ice. It is pretty certain that every liquid and gas we are acquainted with would become solid if exposed to the regions of space. The gas we light our streets with would become wax; all would be in solidity as hard as a rock; pure spirit, which we have never solidified, would appear like a block of transparent crystal, hydrogen gas would become quite solid and resemble metal; we should be able to turn butter like a piece of ivory, and the fragrant odor of the flowers would have to be hot before they would yield perfume. These are a few of the astonishing effects of cold. —*Septimus Piessu.*

**PINE SPIRIT BARRELS** — We learn from Kemp P. Hill, Esq., who is engaged in the turpentine business, that he has successfully tested pine for spirit barrels. That they lose as little by evaporating as the oak, and that no difference is made in the New York market in the price of spirit put up in pine barrels.

This is an important discovery, as it will greatly lessen the expense of barrel making.

As an evidence of the superiority of the pine barrel, we can state that a lot of some seventy pine and oak barrels were hauled to the river bank about three weeks ago, for shipment by boat, but owing to the low state of the river, they have lain there up to Monday last, when the owner determined to ship by the Railroad. The time being too short to get the whole lot to the depot in time, the oak was taken and the pine left behind, for the reason, that the oak barrels were leaking and the pine were not. These pine barrels have been exposed to the hot sun for nearly four weeks and yet exhibit no signs of leaking. —*Cherow Gazette.*

## KILLING ANTS IN TEXAS.

We have seen (says a Texas paper) a machine invented by Dr. Gregory, of LaGrange, Fayette county, which is designed to exterminate the grazing or cutting ant—the greatest pest of this country. The wit of the invention is a chemical compound, which being placed upon burning charcoal produces a deadly gas heavier than air, which sinks into their holes filling them up, and permeating the earth in every direction. The machine is simple in construction, cheap, and requiring no peculiar skill in the operator to use it. Several gentlemen who have used it, inform us that it is effectual and has no deleterious effect upon the operator. If it is what it claims to be, bring on your ant-killers. Shrubbery and fruit trees are suffering in Texas from the nightly depredations of these troublesome insects.

## FASHIONABLE FRIENDS.

The hardest trial of those who fall from affluence and honor to poverty and obscurity, is the discovery that the attachment of so many in whom they confided was a pretence, a mask to gain their own ends, or a miserable shallowness. Sometimes, doubtless, it is with regret that these frivolous followers of the world desert those upon whom they have fawned; but they soon forget them. Flies leave the kitchen when the dishes are empty. The parasites that cluster about the favorite of fortune, to gather his gifts and clasp by his aid, linger with the sunshine but scatter at the approach of a storm, as the leaves cling to a tree in summer weather, but drop off at the breath of winter and leave it naked to the stinging blast. Like ravens settled down for a banquet, and suddenly scared by a noise, how quickly at the first sound of calamity these superficial earthlings are specks of the horizon.

But a true friend sits in the centre, and is for all time. Our need only reveals him more fully and binds him more closely to us. Prosperity and adversity are both revealers, the difference being that in the former our friends know us, in the latter we know them. But notwithstanding the insincerity and greediness prevalent among men, there is a vast deal more of esteem and fellow-yearning than is ever outwardly shown. There are more examples of unadulterated affection, more deeds of silent love and magnanimity, than is usually supposed. Our misfortunes bring to our side real friends, before unknown. Benevolent impulses where we should not expect them, in modest privacy enact many a scene of beautiful wonder amidst the plaudits of angels. And upon the whole, fairly estimating the glory they uses, and the actual and possible prevalence of the friendly sentiment, we must cheerily strike lyre and lift voice to the favorite song, confessing, after every complaint is ended that,

"There is a power to make each hour  
As sweet as heaven designed it;  
Nor need we roam to bring it home,  
Though few there be that find it!  
We seek too high for things close by,  
And lose what nature found us;  
For life hath here no charm so dear  
As home and friends around us."

**SUGGESTIONS AS TO SEED WHEAT.**—Mr. Jethro Tull says:

"Common barley, sown once in the burning sand at Patney, Wiltshire, will, for many years after, if sown in indifferent warm ground, be ripe two or three weeks earlier than any other which has ever been impregnated at Patney; but if sown a degree farther North, on cold clayey land, will, in two or three years, lose this quality, and become as late ripe as any other. The grains of vegetables are their eggs, and the plants proceeding from them have their virtues and their diseases."

The above contains a truth that is known, and to some extent practised upon. But do not wheat growers who are in the habit of sending North, where the wheat ripens some weeks later than with us, make a serious mistake? The same variety of wheat would undoubtedly ripen later for having been cultivated for years in a higher latitude, and earlier for having been cultivated in a low latitude. Add to this that Southern wheat always contains a large percentage of gluten, and so makes better flour. Should we not send South instead of North for seed wheat?

"CREAM SOAP."—Mrs. G. B. Alvord sends us the following:

Take 5 pounds of washing soda;  $3\frac{1}{2}$  pounds clean grease; 5 pounds of lime, and 3 gallons of soft water. Slack the lime; dissolve the soda in the water, and stir the two together, allowing it to remain over. In the morning, pour off the liquid, being very careful not to let any particles of lime follow. Put it into an iron vessel where the grease has been previously warmed—boil over the fire for a few minutes, stirring it during the time. Take it off and in a few hours you will have some nice hard or "Cream Soap," which, if used for washing or cleaning, house, will be found to be a great saving of labor, and not injurious to the hands or clothes. Dissolve a piece of it, large enough to do your washing, in a quart of boiling water, making a suds, in which let your clothes soak all night. In the morning, wash them as usual. They will require very little rubbing. Pour a pailful of boiling water on the lime which remains. Let it stand all night; pour off carefully, and bottle it. This last is "washing fluid," which is valuable for cleaning casks, &c., using a cupful to a gallon of water.—*Am. Agriculturist.*

CHICKEN EPIDEMIC.—The Russellville (Ky.) *Herald* of the 25th ult, says:

Mr. Martin Smith, of Harrison county, Ky, has lost 150 out of 250 chickens belonging to him, within the last ten days. The disease is unknown. The chickens are seized with violent sickness, resembling cholera, and die in the short space of three or four hours. None taken ever recover, though the life of one was sustained for about a week by administering whiskey and pepper. The chickens of Mr Smith, before the appearance of the disease among them, were in remarkably fine condition.

COMMENDATORY.—A subscriber, writing from Florida says:

EDITORS SOUTHERN CULTIVATOR—Enclosed you will find \$2, for which please send me your paper for two years from the 1st January, 1857. I have neglected to forward it sooner in consequence of absence from home. I have derived great benefit from the facts and suggestions made through it by your numerous correspondents and editorials. It comes nearer to what we want in this State than any agricultural work I am acquainted with.

## Advertisements.

### STANFORD'S WILD OAT GRASS.

I AM prepared to furnish SEED of the above Grass the present year, it will be carefully put up and marked, and sent to the depot of Georgia Railroad at Athens, or to an Express Company there, free of charge to Athens, at \$20 per bushel. The quantity of seed to the acre, should be two bushels. But half as much will answer for those who wish to raise their own seed hereafter.

JOHN R STANFORD,  
Clarksville, Ga., May 13th, 1857. June 57—3t

### LAST CHANCE! CHINESE SUGAR CANE AND PROLIFIC PEA!

WE have still a few packages of the genuine seed of the CHINESE SUGAR CANE left. It may be safely planted for a syrup or seed crop, any time before the 1st of July, in this latitude. The CHINESE PROLIFIC PEA will also produce an abundance of seed for next year, if planted soon. Price of these seeds, \$1.00, or \$1.50 per package; when sent per mail, *prepaid*. Address, with plain directions,

PLUMB & LEITNER,  
June 57—1f Augusta, Ga.

### STRAWBERRIES.

PARDEE'S MANUAL FOR THE CULTURE OF THE STRAWBERRY will ensure success, and recommend the best varieties for the different soils and locations. Price.....60 cts. Sent by mail, postage free, on receipt of price.

C. M. SAXTON & CO.,  
June 57—1t Agricultural Book Publishers,  
140 Fulton street, New York.

### WILLIS' IMPROVED STUMP MACAINE.

PATENTED MARCH 6, 1855.

Farmers, Mechanics Road Builders, Speculators, and all progressive men, your attention is called to this Valuable Patent.

MY STUMP MACHINE has great power. It has no equal.—It is simple in its construction, easily worked, and not liable to get out of repair. Its common weight is about 1500 lbs. It is easily born from place to place, and can be loaded in three minutes, and unloaded, set up, and a 1st sty stump drawn, all within fifteen minutes. Once fastened, it will pull an acre and a half of stumps without changing anchorage. A single yoke of cattle or one strong horse, is sufficient to work it. With such a team, if necessary, a power of from three to five hundred tons can be made to bear up on a single stump!

One man can work it, though two work it to better advantage.—The time required to extract stumps from six inches to four feet in diameter, will vary from two to ten minutes. With this Machine, standing trees may be taken out, large rocks removed from their beds; and it is the best Machine ever invented not only for pulling stumps, but for moving buildings, and other heavy bodies. All the iron used, is wrought, of peculiar quality, imported, sustaining 57 tons to the inch.

The price of these Machines varies according to weight and size. I will furnish the Machine at my Manufactory, together with an individual right to work it, for \$200. I reside at Orange, Massachusetts, where I manufacture this article, on a large scale, and hold myself ready to furnish it, or sell rights to use it, in any State or Town in the Union, now unsold, on terms most reasonable.

This patent begins to be appreciated; all who wish to bring so good a thing into use, and thereby make a "pile of money," should come to Orange, see the inventor, see the workings of the Machine with their own eyes, and if not perfectly satisfied respecting its merits, all their expenses shall be cheerfully paid.

June 57—1f

WILLIAM W. WILLIS.

### IMPORTANT TO PLANTERS.

THE RICHMOND FACTORY (Richmond county, Ga.) continues to MANUFACTURE WOOLEN CLOTH, at 12½ cents per yard—finding every material except the Wool. The extensive and constantly increasing patronage the Factory has enjoyed for years past, assure the proprietors that the article of Winter Clothing for Negroes made by them, has not been surpassed by any cloth made North or South.

Recent extensive improvements and additions not only enable us to keep up the standard of the Goods, but to secure an early delivery of the same.

Planters or others, who may desire to avail themselves of this opportunity and secure a first rate article at a moderate cost have only to send us the Wool washed clean in cold water (if sent dirty one-half a cent per yard extra will be charged for washing.) Berry Wool is not objectionable—the Burrs are removed by machinery.

The name of the owner should be marked on all packages sent us. Wool sent by any of the Railroads in Georgia, Alabama or South Carolina, to the Augusta Depot, marked Richmond Factory, (and owner's name also,) will be regularly and promptly received, and the cloth when made, returned to the points directed. Each parcel is made up in the turn received, hence an early delivery is always desirable. All instructions to

June 57—6t

W. I. SCHLEY, President, Augusta, Ga.

### GRAPES.

NOW IS THE SEASON FOR PLANTING.

CHORLTON'S COMPLETE GRAPE GROWER'S GUIDE—  
Reemelin's Vine-Dresser's Manual.....50 cts.  
Allen on the Grape.....\$1 00

Are works which should be in the hands of every one who has a vine to plant or prune. The increased produce of a single year will pay for them.

Sent free of postage on receipt of price.

C. M. SAXTON & CO.,  
June 57—1t Agricultural Book Publishers,  
140 Fulton-st., New York.

### TO LOVERS OF FLOWERS.

BUIST'S FLOWER GARDEN DIRECTORY.....\$1 25  
Beck's Book of Flowers.....1 00  
Will give you the direct us you need for selecting the rarest and best flowers, and for their successful cultivation. These are the best books for amateurs.

Sent free of postage on receipt of price

C. M. SAXTON & CO.,  
June 57—1t Agricultural Book Publishers,  
140 Fulton-st., New York.

### PURE DEVONS AND GRADE DEVONS For Sale.

FOR sale the thorough-bred North Devon BULL CALF "Southerner," 5 months old, of fine form and proportion. Sire *Kookuk* (prize bull), and dam, "Lively Dame;" both Herd Book animals of undoubted pedigree.

Also, a pair of CALVES (heifer and bull) 5 months old, sired by the above Bull (*Kookuk*) and from excellent Short Horn or Durham Cows. For terms, &c., address

June 57—1f

D. REDMOND, Augusta, Ga.

# SCOTT'S LITTLE GIANT CORN AND COB Mill, Improved.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials by SCOTT, MOCK-BEE & Co., under the immediate supervision of the Patentee.

## CARMICHAEL & BEAN, GENERAL AGENTS, AUGUSTA, Ga.

THE attention of Planters and Stock Feeders is respectfully called to this MILL, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being only necessary to fasten them down to a floor or platform, and for this purpose the requisite screws and a printed card of directions will accompany each mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over-heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium wherever exhibited; and we challenge the patentees, manufacturers and agents of all other mills, to produce PROOFS of its ever having been equaled at any trial conducted by disinterested persons and on fair terms. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These mills are guaranteed against defects or breakage, when used according to the directions, and as evidence of their durability, a No. 2 Mill, which has ground nine thousand bushels, and a No. 3 Mill, which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold at \$54. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession official written and printed testimonials which we will gladly exhibit to persons wanting mills, showing and proving the superiority of the Little Giant over all others:

### TESTIMONIALS.

AUGUSTA, GA., April 3, 1855.

I have been running one of SCOTT'S LITTLE GIANT CORN AND COB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour. But I have ground over thirty five bushels in an hour and a half, or equal to twenty-three and a half bushels per hour. In feeding thirty horses I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of crusher ever got up and if I could not replace mine, I would not sell it for five hundred dollars.

I. D. MATHEWS.

Proprietor of the Augusta Omnibuses

AUGUSTA, GA., April 20 1857.

Messrs. CARMICHAEL & BEAN—Gent.—After having used the LITTLE GIANT constantly for two years, I cheerfully confirm every statement made in my certificate of the 31 of April 18 55

I. D. MATHEWS

BEECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta Ga.—Gent.—I have

years, and have fed my stock entirely on Corn and Cob Meal. I had a No. 3 LITTLE GIANT in constant use for the last two have never worked my horses and mules harder than during this time, and they have never been in better condition than they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent. by using the mill.—I am acquainted with several kinds of crushers, but consider the LITTLE GIANT far superior to any I have ever seen.

Yours respectfully.

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gent.—We are using the LITTLE GIANT CORN AND COBB MILLS, which we bought from you, and hereby recommend them to Planters and Stock Feeders as the most simple and durable, the most easily propelled and best crushers we have ever seen, and by the use of which we believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr. Crawford has two mills in use.)

A. J. RAMBO, Edgefield district, S. C.

(Mr. Rambo has three mills at different places.)

J. PRYNTUP, Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHIEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GOODE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

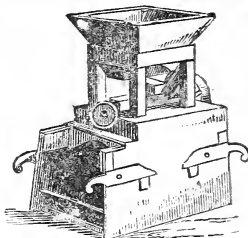
PORTER FLEMING, Augusta, Ga.

JAMES TORKNEY, Lexington, Miss.

may 57—44

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



## FELTON'S PATENT PORTABLE GRAIN MILL. TROY, N. Y.

FOR Grinding all kinds of Grain, including Corn and Cob, and adapted to the Use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Planter, it is destined to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. It is very simple in construction,—the grinding surfaces are of the most durable character and are Self-Sharpening, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost,—and the price comes within the reach of every Planter and Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is capable of grinding three bushels per hour with one-horse power, and from six to eight bushels with two horse power: it grinds sufficiently fine for family use, and does not heat the meal—a most valuable feature.

The perfection of this mill is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. Numerous testimonials in its favor have been received, and will be cheerfully exhibited to all.

All orders for Mills Communications, &c., will be promptly attended to, and should be addressed to the Agent,

D. CHAFFEE,

Augusta, Ga.

May 57th

## SUGAR CANE SEED.

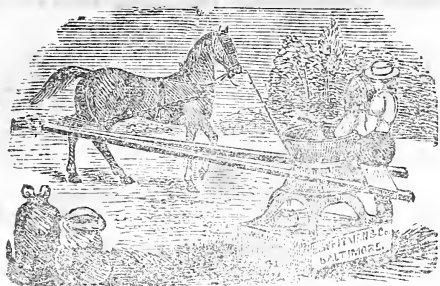
HAVING purchased from Mr. WRAY, his importation of CHINESE IMPROVED SORGHO SEED, grown in France, under his own immediate inspection (thereby insuring the utmost purity), and described editorially by Mr. Greeley in "The Tribune" we offer it for sale in quantities, at ONE DOLLAR A POUND, and in packets pre-paid by mail, at 25 cents 50 cents and \$1 each. This seed so superior to any other in market, can be procured only from

J. M. THORNBURN & CO.,

May 57—31

15 John street, New York.

## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAXNORD'S "CHAMPION."

The Manufacturers of the "Young America" claim for this Mill:  
1st. That it will crush Corn and Cob; also, grind fine Meal.  
2nd. That the entire grinding surface can easily be replaced at a small cost.

3rd. That it has an extra set of fine and coarse plates.  
4th. That it deposits meal in a box or bag.  
5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.  
6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minfutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding part-lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf H. & J. MOORE & CO.

### PLANTATION AND GARDEN Fertilizers.

THE Subscriber has constantly on hand the following concentrated MANURES, a single trial of which will prove to the most incredulous their value as a restorer of fertility to worn out soils and their adaptation to increasing largely the products of the Garden and the Orchard

Numerous testimonials from gentlemen who tried them last season have been received, all of whom concur in saying that their experiments were satisfactory and profitable beyond their anticipations:

PHOSPHATED GUANO.—In barrels of about 250 lbs., at 2 cents per lb.

SUPER PHOSPHATE OF LIME.—In barrels of about 250 lbs at 2 cents per lb.

COARSE GROUND BONES.—In barrels about 175 lbs. at 1½ cents per lb.

FINE GROUND BONES.—In barrels of about 200 lbs., at 1½ cents per lb.

PERUVIAN GUANO.—In sacks of about 140 lbs., at 2½ cents per lb.

POUDRETTE, or de-odorized Night Soil, in powder \$1.75 per barrel.

LAND PLASTER.—At \$1 75 per barrel.

Also, ROCK SALT, in barrels of about 300 lbs. at 1 cent per lb.

Orders by mail or otherwise promptly attended to. A pamphlet, containing further particulars and directions for using the above fertilizers will be sent by mail, on the receipt of postage stamp, to any one desiring it.

August56—ly D. C. LOWBER, 98 Magazine st., New Orleans.

### LANDS IN SOUTH WESTERN GEORGIA For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany y 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

Albany, Ga., Oct. 10th 1856. W. W. CHEEVER, Nov56—tf

### GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address

May56—tf WM. N. WHITE, Athens, Ga.

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills or corn mills, unping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock. A d all are invited to call and inspect it. The Planter, especially should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

## PRICES.

2½ Horse Power.....	\$375
4 do. do.....	500
6 do. do.....	700
8 do. do.....	900
10 do. do.....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

D. C. LOWBER,

Feb57—ly 98 Magazine St., New Orleans.

### STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Sommerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska," a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

JAMES R. FERGUSON, Memphis, Tenn.

June56—tf

### "FRUITLAND NURSERY," AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing D. REDMOND, Augusta, Ga.

Dec56—tf

### CHINESE SUGAR CANE.

JUST received direct from France, the genuine SEED OF SORGHO SUCRE or CHINESE SUGAR CANE, for sale in quantity or small packets.

Our spring stock of SEED is very full, and of the most valuable varieties in cultivation.

Seed Catalogues, and Pamphlets containing information in reference to the Chinese Sugar Cane, will be furnished on application, or forwarded to those who enclose us a postage stamp for each.

April57—2t

CURTIS & COBB, Seedsmen and Florists, 348 Washington st. Boston.

### AUGUSTA SEED STORE.

(Nearly opposite the United States and Globe Hotels.)

THE Subscriber has received and will continue to receive throughout the season, his stock of genuine and fresh GARDEN SEEDS—crop of 1865. The usual deductions made to country Merchants.

J. H. SERVICE, GIANT ASPARAGUS ROOTS, White and Red ONION SETS, White and Red CLOVER, LUCERNE, BLUE GRASS, &c., &c.

Jan57—3t





## FLOWER SEEDS FOR THE SOUTH.

HAVING experienced the great difficulty in obtaining reliable Flower Seeds suitable to the South, I have raised a small quantity, which I am now offering to the public. I would particularly draw the attention of the Ladies to the numerous collections of DOUBLE STOCK GILLIFLOWERS, TEN WEEKS STOCKS, CARNATIONS, GERMAN ASTERS, WALLFLOWER, HOLLYHOCKS, and many others:

## AT TEN CENTS A PAPER.

Double Stock Gilliflowers,  
" Ten Weeks Stocks,  
" Imperial Stocks,  
" Autumnal Stock,  
" Carnations,  
" Wallflower,  
Dianthus barbatus plenissima,  
Rhodanthe Manglesii,  
Heliotropium peruvianum,  
Pharbitis limbata,  
Polygamm lenitifolium.

## AT FIVE CENTS PER PAPER.

Adonis aestivalis,  
Ageratum coeruleum,  
Amaranthus tricolor,  
Althea rosea,  
" chinensis,  
Ammobium alatum,  
Antirrhinum majus,  
Aster chinensis,  
Calendula crista galli,  
Calliopis bicolor,  
Catanouche bicolor,  
Cecosea cristata,  
Celosia indica,  
Centourea cyanus.

Delphinium Ajacis,  
Dianthus c. nensis,  
Double Balsams,  
El crysium lucidum,  
Papaver somniferum,  
" mackanthum,  
Emilea flammea,  
Gomphrena globosa,  
Heris speciosa,  
Ipomea Quamoclit,  
Lavatera trinestrus,  
" Murselli.

Phlox Drummondii,  
Portulacca Thellusoni,  
Poterium Long visorba,  
Reseda odorata,  
Salpiglossis variabilis,  
Scabiosa atropuapunea,  
Gilia tricolor,  
Senecia elegans,  
Tagetes erecta,  
" patula,  
Verbena Melindris,  
Viola odorata,  
Zinnia elegans,  
Xeranthemum annuum,  
Gnaphalium toetidum.

Orders, enclosing the money and a three cent postage stamp for every dollar's worth of seed sent to PLUMB & LEITNER, Augusta, Ga., or to the subscriber, will meet with prompt attention.  
Feb 57—tf

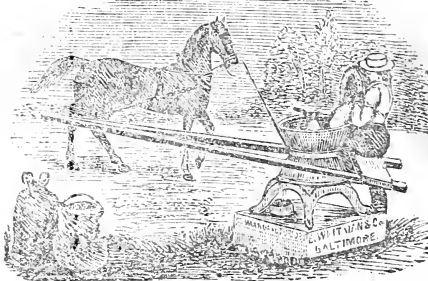
ROBERT NELSON.

## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collection embraces the Doedar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vitae, Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c. &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address (Dec 56—tf) D REDMOND, Augusta, Ga.

## YOUNG AMERICA CORN AND COB MILL.

The Cheapest and Best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.  
March—tf

JOHN &amp; THOS. A. BONES.

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next.  
Dec 56—tf

RICHARD PETERS,  
Atlanta, Ga.

## BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address Nov 55—tf R. PETERS, Atlanta, Ga.

## CHINESE PROLIFIC PEA!

## THE GREAT FORAGE PLANT AND RENOVATOR OF SOUTHERN LANDS!!

THIS very remarkable new Field Pea is by far the most valuable and productive variety ever introduced. It is well adapted to poor land, yielding at least three or four times as much as any of the common varieties, and producing a growth of vine almost incredible. It grows in clusters of from 12 to 20 pods, each pod containing 10 to 12 peas, and is of course far more easily gathered than any other. The vine never becomes hard, but is soft and nutritive from the blossom to the root. It is greedily eaten by stock, and the Peas are unsurpassed for the table in delicacy and richness of flavor.

We subjoin the following extract—first from Ex Governor Drew, of Arkansas, and the remainder from several well known citizens of South Bend, in the same State:

Dear Sir:—The evidences afforded me while at your house by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is beyond anything in the way of a great yield I have ever known.

I think I am within bounds when I say the yield, in pea and vine, is at least five times greater than any other pea—clover, or grass &c. &c. And the waste peas were equal to any other full pea crop; and from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr. Wm. P. Douglass, has done well in making arrangements for the extended culture of this invaluable Pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands than guano or any other application to the soil, while, at the same time, the yield is likely to be as great on such lands as on the rich bottoms of Arkansas.

Respectfully your obt. serv't,

THOS. S. DREW.

To ROBERT H. DOUGLASS, Esq.

Dr. Grece, of Arkansas, estimated the yield in Peas or Hay at "five times that of any other Field Pea he had ever seen planted." W. R. Lee, Esq., says he "has never seen anything to equal it" and that it should "supercede the use of every other," and the following certificate settles the question of its value for Hay:

"We, the undersigned, saw 'that pea-vine,' and think, after the peas were gathered, that the vine would have made as much hay as a stout man could carry; it covered a space of ten or twelve feet in diameter, and lay from one foot to eighteen inches deep."

WM. C. MEEDS,  
B. W. LEE.

South Bend, Ark., Sept., 1856.

Col J. E. L. Marshall, Assistant Engineer on the Little Rock and Napoleon Rail Road, says:

"If the Southern Farmers will give it a fair trial, they will find it to be the greatest Pea both for table use and for feeding stock, now known. They eat or hog faster than anything I have ever tried. On the 1 1/2 acres Mr. Douglass had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of land of the same size," &c. &c.

For further particulars, see Circulars furnished gratis by the Agents.

We are prepared to send out a limited quantity of these Peas, put up in cloth packages to go by mail. They will be forwarded, free of postage, to any address on receipt of \$1.50, or otherwise at \$1 each. Current funds and postage stamps will be a satisfactory remittance. Our names will be printed on all packages of the genuine seed.

Any one not perfectly satisfied with the Pea will have his money returned. Address (with plain directions for mail) to PLUMB & LEITNER, Augusta, Georgia.  
Feb 57—tf

\* \* Dealers in Seeds and country merchants can be supplied, to a limited extent, at the usual discount, if their orders are forwarded immediately.

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## GREAT ORIGINAL WORKS ON THE HORSE.

DADD'S ANATOMY AND PHYSIOLOGY OF THE HORSE, and DICTIONARY OF VETERINARY SCIENCE, Splendidly Illustrated—plain.....	\$2 00
do, colored plates.....	4 00
DADD'S MODERN HORSE DOCTOR, containing practical directions for the Treatment of Diseases and Lameness of Horses, with illustrations.....	\$1 00
The Twelfth Thousand LINSLEY'S MORGAN HORSES, as interesting as a romance, giving the history of the Morgan Horse, Pedigrees of the Principal Horses, of this breed, and general instructions for Purchasing, Breeding and Training Horses, \$1 00	
The Fifth Thousand, now ready. Sent free of postage upon receipt of price	
C. M. SAXTON & CO., Agricultural Book Publishers, 140 Fulton-st., New York.	
June 57—1t	

## HORSE POWERS, THRESHERS, GRAIN Cradles, Fan Mills, &amp;c.

WE are now prepared to furnish GRAIN GROWERS, with MCCORD'S HORSE POWERS, a light and excellent article.

BOJARDUS' HORSE POWERS, all Iron, heavier than McCords.

TAPLIN'S and WARREN'S HORSE POWERS.  
Iron frame THRESHERS; Baltimore, New York and Georgia made THRESHERS, from \$30 to \$60.

FAN MILLS, of the best make and different sizes.

GRAIN CRADLES, a light and strong article.

Also, BELTING, and all articles necessary for gathering and cleaning Grain for market.

April 57—3t

CARMICHAEL & BEAN,  
Augusta, Ga.

1857!

1857!

SOUTHERN CULTIVATOR,  
A MONTHLY JOURNAL,

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume commences in January, 1857.

## TERMS.

ONE COPY, one year.....\$1 TWENTY FIVE COPIES.....\$20  
SIX COPIES.....5 ONE HUNDRED COPIES.....75

ALWAYS IN ADVANCE. No paper sent unless the cash accompanies the order.

The Bills of all specie-paying Banks, and Post Office Stamps received at par.

Remittances, by mail (post-paid) will be at the Publisher's risk.

ADDRESS WM. S. JONES, Augusta, Ga.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

"FRUITLAND NURSERY," AUGUSTA, GA.  
IMPORTANT NEW ARRANGEMENT.

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which number many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen or hards of M. BERCKMANS contain all the best and rarest variety of other fruit known in Europe and America, from which we shall cut every thing of special merit. It is not our object to multiply varieties, but to select, with the greatest care, the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at *per moderate prices*.

Full Descriptive and Priced Catalogues, sent *post paid* to all applicants. Address, D. REDMOND, Augusta, Ga.  
April 57—tf

## REAPING MACHINES.

HAVING had the KENTUCKY HARVESTER thoroughly tested, we now confidently recommend them to Planters as the best Machine for Southern use ever offered.

CARMICHAEL & BEAN.

April 57—3t

Augusta, Ga.

## LAWSON WATERMELLOON SEED.

A FEW packages of genuine "Lawson" WATERMELLOON SEED, at 10 and 20 cents each. If per mail, 16 or 32 cents may be sent to cover postage. Address

April 57—tf

PLUMB & LEITNER, Augusta, Ga.

## SOUTHERN CULTIVATOR FOR 1856.

FOUND volumes of the SOUTHERN CULTIVATOR for 1856.

May now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address,

WM. S. JONES, Augusta, Ga.

## CENTRAL RAILROAD.



## CHANGE OF SCHEDULE.

ON and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

## BETWEEN SAVANNAH AND MACON.

Leaves Savannah Daily at.....	5 00 A. M. and 12 15 P. M.
Arrive in Macon.....	2 15 P. M. " 1 00 A. M.
Leave Macon.....	11 45 A. M. " 9 30 P. M.
Arrive in Savannah.....	10 45 P. M. " 7 20 A. M.

## BETWEEN SAVANNAH AND AUGUSTA.

Leave Savannah.....	12 15 P. M. and 9 30 P. M.
Arrive in Augusta.....	8 45 P. M. " 5 30 A. M.
Leave Augusta.....	6 00 A. M. " 4 30 P. M.
Arrive in Savannah.....	1 30 P. M. " 10 45 P. M.

## BETWEEN MACON AND AUGUSTA.

Leaves Macon.....	11 45 A. M. and 9 30 P. M.
Arrive in Augusta.....	8 45 P. M. " 5 30 A. M.
Leave Augusta.....	6 00 A. M. " 4 30 P. M.
Arrive in Macon.....	2 15 P. M. " 1 00 A. M.

## BETWEEN SAVANNAH, MILLEDGEVILLE &amp; EATONTON.

Leave Savannah.....	5 00 A. M.
Arrive in Milledgeville.....	2 45 P. M.
Leave Macon.....	11 45 A. M.
Arrive in Eatonton.....	5 00 P. M.

W. M. WADLEY, Gen'l Superintendent.

Savannah, Ga., Oct., 12, 1855.

July 56—tf

# SOUTHERN CULTIVATOR.

DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV.

AUGUSTA, GA., JULY, 1857.

NO. 7.

WILLIAM S. JONES, Publisher.

DANIEL J. ELL, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH--(JULY.)

#### THE PLANTATION.

**Cotton.**—Work this crop steadily, to encourage the development and retention of forms and bolls. Shallow, surface culture, with light sweeps, followed by the hoe, will be found the best method for the accomplishment of this object. Do not allow the grass or weeds to get a foothold either in the row or middles—wage a steady and relentless warfare upon them during this month, after which they will not give you much trouble.

**Corn.**—Where this crop is not “laid by,” it will be well to give it a constant *surface working* until prevented by the spreading of the blades across the rows. Allow no weeds to appear in your corn field—both weeds and corn cannot flourish on the same ground. Do not use the plow among your corn after the first two workings. It breaks and tears up the young rootlets, and does far more injury than good. At the last working, sow *Cow Peas* broadcast, and cover with a sweep, cultivator or harrow. Plant, also, *Pumpkins*, in every second or third hill, and when well up, thin to one plant in a hill, and work carefully.

*Cow Peas* should now be sown broadcast for hay, at the rate of a bushel or six pecks to the acre. Scatter over the surface evenly, and cover with a turning plow; or, first plow your ground deeply, sow your seed, and drag in with a harrow. *Cow Peas* intended for seed may be sown in drills, three feet apart.

*Pumpkins* may be planted as a separate crop. Prepare the ground as for Watermelons; hills 10 feet apart. When well up, thin to one or two strong plants in a hill, give these a sprinkling of Plaster or Gypsum (a small handful to each hill) when the dew is on; loosen the earth, carefully breaking the crust, without disturbing the plant, and then let them run. The after-work consists in shallow surface culture, and the destruction of weeds, until the vines cover the entire ground.

*Pulling Fodder*, we consider “behind the age” in all

respects. It should be discontinued by all enlightened and economical planters. We confidently offer the following substitute:

**Corn Fodder.**—Break up, very deeply, a piece of rich land, harrow it finely, and with a broad shovel plow lay it off in drills three feet apart. In these drills scatter corn at the rate of 40 or 50 grains to the foot, and cover with a hoe, rake, board or harrow, drawn lengthwise along the drill. When well up, “run around” it pretty close with a long rooter, and repeat after 10 or 15 days. In the course of 10 or 15 days more, break out the entire middles with the rooter, and finally lay by with the shovel plow, running up and down in the same furrow, midway between the drills. On good land, prepared and worked in this way, the yield will be from 3 to 6 tons, (sometimes even 10) of excellent fodder per acre. This is as much as can be pulled from 20 to 30 acres, in the common way, and at one tenth of the labor. Pound for pound, it is as good, if not better than pulled fodder, as it contains the *entire juice and strength of the plant*, which, in the other case, has gone to the formation of the ear or grain. *The loss of weight and injury to the grain, by depriving corn stalks of their leaves before all growth has ceased, is fully equal to the value of the fodder pulled.* We, therefore, desire that our readers should abandon this “old foggy” practice, and give drilled corn-fodder a fair trial. It is not yet too late, but should be done *immediately*. Any one who fairly tests it will, we are quite certain, abandon fodder pulling forever.

In moist weather, sow again the *Chinese Sugar Cane* for soiling. It can be cut every 15 or 20 days and fed it to your cattle in the stable or lot. You will, by so doing, make a great deal of excellent manure.

**Curing Corn Fodder.**—The proper time to cut drilled fodder, is when all the stalks are fairly tasseled out, or in full bloom. It may be cut close to the ground, with a long, sharp knife or sickle. Select a dry day, commencing early in the morning and cutting until dinner time. As fast as it is cut, spread it thin along the row, and let it lie and take the sun until after dinner, when the upper side will be pretty well wilted. Then turn it over carefully, and leave it on the ground until 5 o'clock in the evening, when it must be gathered up, tied in bundles of moderate size (say a foot through at the band) and set up on the butt end, in shocks of 4 or 5 bundles each—turning one bundle upside down, over the others, as a “cap-sheaf.” The next day, after sunrise, these bundles must be untied and the fodder spread out again until noon, and then turned

and sunned till night, as before. This may be repeated the third day, which will generally be sufficient, if the weather is favorable. It may then be permanently stacked or packed away under cover; and if, while packing, the different layers are sprinkled with salt, at the rate of say 8 quarts to an ordinary 2-horse wagon load, it will be more highly relished by stock, and all danger of heating obviated. Many persons make a great mystery of curing drill or broadcast corn-fodder; but we have always found this simple method sure and effectual. The same plan, of course, applies to the Chinese Sugar Cane fodder.

*Cutting up Corn in the field*, and using the stalk and leaf for the winter feeding of stock, has also many advantages, which we will speak of in detail hereafter.

*Sweet Potatoes* must now be worked carefully, throwing up some fresh mellow earth to the ridges, and destroying all weeds. Make your last planting of "draws;" and if the weather is very dry, before planting dip the root in a thin batter—plant just at night-fall—and manage as heretofore directed. As soon as possible, prepare a rich, moist piece of land, and plant out an abundance of cut vines to produce next year's seed.

*Turnips*.—This is a most important crop for the planter and farmer, though not yet appreciated as such. A distinguished English statesman has said that England could better afford to lose its navy than its *turnip crop*.—Therefore plant largely; it is indispensable as a winter forage. We will hereafter describe the best and most profitable way of feeding. If you have not already prepared your land for Turnips, do it at once, pulverizing it thoroughly by several plowings. If you have no land which recently has been cow-penned, scatter some guano, (250 pounds per acre) previously to the last plowing, and turn it under immediately. Sow in rows, at such distance as to allow the turnips to be worked with "Knox's Improved Horse Hoe," if you have this excellent implement. Make arrangements to sow often and largely, commencing early, as it is sometimes extremely difficult to get a stand. Make your first sowing about the 20th of this month, and if that should fail, try again every 10 days until the last of September, and your perseverance will be crowned with success. Guano, superphosphate of lime, broken bones, or a compost of woods-mould or well-rotted stable manure with crushed bones and ashes, are each and all proper fertilizers for the turnip crop. The manure may be applied in the drill or put on plentifully broadcast, and plowed in well. The *Ruta Baga*, *Red Top*, ("strap leaf"), *Early Flat Dutch*, *Yellow Aberdeen*, *Norfolk* and *Globe* are all good varieties—the two first, fifth and sixth being the best for field culture. As food for stock, we believe the *Ruta Baga* is conceded to stand foremost.

*Draining and Ditching*.—The richest land on the plantation is often allowed to run waste, worthless and wild, presenting only stagnant puddles of water, rank grasses, seeds and brambles, and forming a harbor and receptacle for snakes, lizards, turtles and "vermin" of every description. Now, during the "summer solstice," when the ground is comparatively dry, and the heavy field-work

over, is a good time to change these offensive blotches on the face of Nature into cultivated fields of the most productive character. Dig wide and deep under-drains, or open ditches to carry off the surplus water, cut down and grub up trees, bushes and briars, destroy noxious weeds, &c., and plant the reclaimed ground next spring in Irish Potatoes, Corn, Cotton, or Grass for meadows.

*Grass and Woodland Pastures*.—Select a piece of naturally moist, good land, timbered with spreading trees—cut down and grub out all small shrubbery, briars, brush, &c., leaving only the large trees standing. Then break up the ground as finely as possible, by plowing and cross plowing, with a long, stout, sharp rooter, and seed down heavily with *White Clover*, *Kentucky Blue*, *Texas Musk-mint*, *Herds*, *Italian Ray*, or other grasses for *woodland pasture*. Grass will not do well without plenty of moisture, under our parching suns; and to such as are not able to supply moisture and sustenance, by deep subsoiling and liquid manure, we recommend a trial of the *shade* for their pastures, meadows and lawns, as above indicated.

*Hay*.—Now is the time to make hay. Cut the grass while in bloom, spread it immediately, and turn it over in the afternoon. In the evening, rake it up in long and rather thick rows. By turning them once a day for the next two or three days, your hay will be nicely cured, and equal to, if not better than the Northern hay. Should rain threaten while the hay is drying, make a rush with full force, and pack the rows up into sharp pyramidal cocks the size of a molasses hogshead, and when the ground dries again, spread it out *thin* to cure. Hay is now worth in Augusta \$2 per hundred, or \$10 per ton! and corn fodder, baled, about the same!

*Weeds and Grass*.—All crops on the plantation require particular attention during the present month. The weeds will choke up and strangle everything, unless they are summarily dealt with—cut down and destroy them before they go to seed; and thus prevent present and (in a measure) future annoyance from them.

#### THE KITCHEN GARDEN.

The earlier spring vegetables being now nearly all gone, little can be done to advantage. It will be well, however, to clear off or turn under all weeds and the remains of early vegetables, and manure liberally by way of preparation for full crops. *Celery* seed may be sown, but the bed must be shaded from the direct rays of the sun. Sow, also, *Ruta Baga* and other *Turnips*, as directed under the previous head; *Lima* or "Butter Beans," the *Green Glazed Cabbage*; purple *Egg Plants*, *Radishes*, *Cabbages*, *Lettuce*, *Tomatoes*, &c., for late crops. In the latter part of this month, transplant *Cabbages* for fall and winter use. Take off limbs of your *Tomato* vines, shorten the top and set them out as cuttings, and shade them with a little brush wood; they will soon come to bearing, and yield fruit until frost. Also, plant Garden *Peas* and mulch them pretty heavily.

Dig or plow your garden over thoroughly, and repeat the preparatory operations of the spring, for, in fact, this and the next month should be considered a second spring, all the spring works repeated, and, if the season proves

favorable, you may have a full supply of vegetables until frost. *Mulch* and water young trees, shrubs, vines and vegetables, using liquid manure as heretofore recommended, alternately with pure soft water. Prepare the ground for *Strawberry Beds* during this and the next month. Select new ground near an unfailing stream, if possible—plow deep, turning under a good thick coat of leaf-mould and ashes, and leaving the surface fine and mellow. We give from the experienced pen of Mr. NELSON, an excellent article on Strawberries, elsewhere in present number.—The most important work, however, for the present, is to keep your Strawberries clear of weeds, and the soil around them well stirred, which is done best with a pronged hoe.

*Transplant* Cabbages, Cauliflowers, Celery, Tomatoes, &c. Plant *Melon* seed for mango pickles—also, *Sweet Corn* for the experienced pen of Mr. NELSON, an excellent article on Strawberries, elsewhere in present number.—The most important work, however, for the present, is to keep your Strawberries clear of weeds, and the soil around them well stirred, which is done best with a pronged hoe.

#### THE FRUIT ORCHARD.

Wherever the spring frosts have killed the fruit, there will be a strong tendency to over-luxuriance in the growth of wood. This should be checked by cutting back or nipping off the ends of the young shoots, in order to produce more bearing wood for next year. Destroy all injurious insects, and note carefully the bearing qualities and peculiarities of the different *new* as well as old varieties of fruit. No trouble or care should be spared in gathering and sending to market in the best possible condition. Gather Peaches for distant markets as soon as they show elasticity by pressing them gently with the hand, before they are so ripe as to leave an impression of the fingers.

#### THE FLOWER GARDEN.

*Roses*, &c., should now be dudded and layered. Take up early *Rubus*, as directed in our last number, and plant others to flower in Autumn. *Roses*, *Chrysanthemums*, &c., may be propagated by layers. *Dahlias* will need staking and pruning, if over-luxuriant. Clip *Box* edgings. Now, also, is the best time to trim Evergreen hedges and screens. Gather all desirable seeds, as they ripen, and put away in close paper bags, carefully labeling them. *Water* freely, both roots and foliage, and use *liquid* manure for the roots, at intervals, particularly in rainy weather, never applying it during a drouth. Keep the earth mellow, and *mulch* all large herbaceous plants with woods-mould, leaves or saw dust.

#### AGRICULTURAL COLLEGES.

It is very creditable to the young State of Michigan that its enterprising citizens are the first to found and put into successful operation a State Agricultural College in the New World. The institution is located near Lansing, the capital of the State, on a farm of 700 acres, and has endowments in land and money that ensure it against a failure from the lack of pecuniary aid at the outset. The Legislature has given it \$20,000 a year for two years; and in case the money is wisely expended, more will doubt-

less be granted, provided the sale of lands, or income from other sources, should prove insufficient.

The people of Michigan have always been liberal toward their common schools and colleges; and this new educational enterprise will confer more honor upon their practical good sense than anything else which they have ever done. It is an effort to teach and learn that kind of information which is most needed in every agricultural community. It wisely cultivates the most useful knowledge, rather than that which is inferior in character and utility. It is a legislative recognition of the fact, that agriculture is not so poor in principles, in learning and in science, as to present to the youthful mind nothing which is worthy of being studied. By recognizing Tillage and Husbandry as an intellectual calling, a great point is gained—a point, which we are pained to believe, the Planting South has not yet reached. We have no agricultural colleges, no agricultural schools; and we give a feeble and inadequate support to our agricultural journals. If the South had right views and feelings on this subject, it would not be necessary for the President of the Virginia State Agricultural Society to address the people of that Commonwealth in the following words:

"There is one other subject which nearly concerns the farming interest, and to which I beg leave before closing this report, to call your attention. I refer to the great subject of popular education. Seventy thousand of our adult white population can neither read nor write! and these, too, are 'bone of our bone and flesh of our flesh;' they are Virginia's sons and daughters! In the name of humanity! in the name of all that is generous, unselfish and noble in our nature! in the name of country, of Christianity, of God! will the farmers of Virginia any longer permit the existence of this deplorable state of ignorance?"

If my humble voice could be heard beyond this assembly I would say to the farmers of Virginia, consider that your children, aye, the descendants of the richest of your present number, will eventually, in a few generations, be numbered amongst the poor. Transport yourselves, then in imagination, but thirty, forty, or fifty years into the future, and whilst you yet live, make yourselves the tender and blest fathers of the poor, and shed abroad your hearts and means until every child within the limits of our broad Commonwealth shall at least have the advantages of *free school education*. Thirty years ago the Sage of Monticello, and noble band of patriots, assembled on a spot that will ever be memorable, as it appears most fit for the highest and holiest of patriotic deeds. From the summit of the Blue Ridge Mountains, at Rockfish Gap, midway the State, and as if from the high heavens that canopy it, emanated that immortal act which gave a 'local habitation and a name' to the University of Virginia.—This great institution of learning now stands the light and life, the ornament of the State, and is well nigh all that has saved us from intellectual degradation as a people. But the light which it sheds must be reflected, refracted, and absorbed throughout the dark abodes of ignorance in our State, or else it will fall short of accomplishing all the beneficent purposes of its patriotic founders.

"The great men who founded our University with that wisdom which sees the end from the beginning, and themselves utterly above that modern meanness which flatters and deceives, in order that it may lead, and ultimately betray and desert the people—those great men recognized and acted on the law of our nature that knowledge must emanate from the higher and be diffused



through the lower ranks of society, and hence they were led to begin our system of education by the establishment of an university of colleges, and of high schools. It was however, a cherished idea of Mr. JEFFERSON, the father of the University, that a system of primary schools should also be established for the elementary education of every white child in the commonwealth. The university, the colleges, and the high schools have already prepared an ample corps of teachers; and I would appeal to this assembly as representatives of the farmers of the State to throw the whole weight of their influence in favor of the immediate adoption of some practical system of common school education for the mass of the people."

The above remarks are particularly interesting at this time as showing the earnestness with which the best minds in the Old Dominion are devoting their energies to the enlightenment of the popular understanding. Their language and devotion remind one of PATRICK HENRY, and betray a deep conviction that a *revolution* in the opinions of men is indispensable to work out a higher and safer position for the uneducated voters of the South.— That Mr. JEFFERSON saw the necessity of carrying useful knowledge, and intellectual culture home to the people, is a fact of some interest as an integral part of our elective system of government. But our present purpose is not to discuss popular education in general, but rather the professional instruction of farmers and planters. On this head Mr. PHILIP ST. GEORGE COCKE, the gentlemen above quoted, has these pregnant remarks:

"It is a very remarkable fact that amongst all the numerous and varied pursuits of man, the very one of those pursuits which has the most intimate, the most extended, and often the most reconductive connection with all the laws of physical nature, with all science, with all art, in short, with the whole range of knowledge, a pursuit, too, upon which depends the subsistence and the very existence of the human species, upon which is based the well-being, the happiness, the progress, the prosperity of individuals, of States, and of nations. It is remarkable, I say, that the pursuit of agriculture should be the *last* and the *least* to be benefitted and advanced by all the vast progress that has been made in other departments of skill knowledge and industry. And why is this? First because the science and the art of agriculture, having their infinite connections near and remote, with all knowledge, the general subject is most difficult to be understood and fully known, as it is one of the most extensive and reconductive that can engage the human mind. In the next place, because, throughout all history, and in every country, the very men most engaged and interested in agriculture, have been precisely those who have been least cultivated and improved by means of scholastic exercises and education suited to their pursuits."

This is a truthful and sound view of the subject, and one that explains why it has taken over thirty-five years after the first bill was reported in the New York Legislature to found a State Agricultural College in that commonwealth, and before the pittance of \$40,000 was obtained for that purpose, on condition that private citizens gave an equal sum. It will not take so long for public sentiment to ripen in Virginia. Hear the gifted President of her State Agricultural Society:

"It is universally deemed essential to educate the statesman, the lawyer, the physician, the divine, the soldier, the sailor, the merchant, the artist, and the mechanic; and schools, and colleges, and universities innumerable are everywhere provided for training the men destined to these occupations, by enlarging and strengthening

their minds, and extending their knowledge, so that they may command and control all the resources, intellectual and physical, for the attainment of the ultimate objects of their respective professions: whilst the farmer, he who is to follow agriculture as his vocation, is either left entirely without education, or with such defective, partial learning as is to be acquired in schools which ignore the whole subject of the theory and practice of agriculture as completely as if all science and all learning had no application to, no connection with, and no uses in the most universal, the most necessary, the most complex, and the most difficult of human pursuits. The consequence of all this is, that even the best educated men, when they first come to practice agriculture, find that they have every thing yet to learn in the science and art, the theory and practice of their profession; whilst the mass, the multitude of those who follow this calling, are as ignorant of science as are the cattle they drive."

The losses sustained by the lamentable neglect of agricultural studies are incalculable. Mr. COCKE considerably underestimates them in the following statement:

"In our Southern States, the entire class of proprietors or cultivators of small landed property, the managers or overseers having in a great measure the more immediate supervision and control of the large landed estates of wealthy proprietors; the two classes of our Southern farmers and planters, constituting at least nineteen-twentieths of the whole number of those who wield the immense capital invested in land and labor throughout the slave-holding States, are universally and utterly ignorant of every abstract principle of physical or natural science. And it is reasonable to believe that the loss to Southern agriculture each year in consequence of this lamentable state of ignorance, if such could be prevented, and the amount be saved for a single year to be appropriated and applied to educational purposes, that it would itself be sufficient richly to endow as many agricultural schools and colleges as are at present required by our Southern States. When we contemplate the vast amount of ignorance, the total want of education, existing among the mass of the agricultural population of our own State, we should be at no loss to conjecture, that the pecuniary loss to Virginia from this cause is immense indeed."

To remedy this unfortunate condition of things, it is proposed to establish an agricultural department or college at the University with three professors; and also one or more agricultural schools for the instruction of youth who may not have the means to command a college education; said schools to be located in the best cultivated districts in the State. "To carry this system into successful practical operation," says its author, "will require \$200,000 to be appropriated in the following manner, viz: \$60,000 to be invested in State six per cent. stock, the annual interest of which would pay the three professors of the University Agricultural College \$1200 each, which, together with tuition fees, would provide salaries sufficient to command the services of the ablest professors; \$40,000 would be left to build up and support an Agricultural Institute. The requisite buildings could be erected at a cost of from \$50,000 to \$75,000, and the balance of the fund should be invested in State stock, the annual interest only to be used for paying the salaries of professors, and other necessary expenses of the school."

It is proposed to raise one-half of \$200,000 by subscription, and the other moiety by aid from the Legislature. That there is enough of liberality and intelligence in Virginia to achieve something of the kind indicated, we have no doubt; and we shall rejoice to see her taking the lead of all the other Southern States in teaching agriculture as a learned and honorable profession. Sooner or later, the Legislature of Georgia will move in the same direction. Up to this time, it has treated the study of Till-

lage and Husbandry as unworthy of any assistance; and unlike the President of the Virginia State Agricultural Society, it appears to regard ignorance as more valuable to the cultivator and owner of the soil, than knowledge. Everywhere these two great antagonist elements in human society contend against each other. At the start, Ignorance has the advantage of possessing the mind of man by which it commands many an unwise vote in all deliberative bodies; but Knowledge is sure to win the day after the people become sufficiently enlightened to choose enlightened representatives.

When we see agricultural colleges going into successful operation in Michigan, Wisconsin, Illinois, Ohio, Pennsylvania and New York, it is some satisfaction to know that our cheap fifty cent *Genesee Farmer*, long circulated widely in all these States, and when some of them were territories, and labored faithfully to bring public opinion up to where it now stands on this question—Somebody ought to circulate Agricultural Tracts at the South. All our efforts for improvement are too narrow in conception, and too limited in execution, to bring forth immediate fruit of any considerable value. It is not possible for schemes so isolated to have more than a very feeble hold on popular sympathy. The circulation of no dollar agricultural paper at the South has ever been one-half what it should be to awaken and keep alive a proper feeling in behalf of the agricultural interest. No matter what is proposed for the benefit of this immense interest, nothing can be done without concert of action; and all experience in all countries goes to prove, that agricultural communities move much slower than either commercial or mechanical ones. Give them their well attended societies, their well read professional and other libraries, their journals of large circulation, and often issued, that mental activity may pervade the whole mass, and instead of being the mere hewers of wood and drawers of water for other classes, their superior wisdom would be looked up to by all, and govern every State as it ought to be governed. To have unlimited political power is nothing to farmers, if they permit demagogues to use and abuse it. True nobility lies not in appearing to be strong and great, but in positive strength duly and properly used to achieve noble ends. The owners of American farms and plantations have peculiar advantages for elevating themselves and their posterity, and at the same time render a valuable service to all other classes by the general improvement of the country. An expansion of intellect and a deeper insight into the natural laws that pervade all plants, all animals, and all inanimate matter, can only be acquired by an effort to enlarge one's mental treasures and powers. There is unrivalled happiness in study, provided one's taste is early cultivated aright, and he is not surrounded by adverse influences calculated to dwarf the intellect, mislead the affections, and corrupt the heart. The moral influence of rural sciences has not been sufficiently discussed before parents who have sons to educate and settle in the world. Temptations to evil will be lessened when schools and colleges are mainly located on large farms, and students are required to witness and understand all the labors of the cultivator and stock grower, as well as work in the laboratory, and recite their lessons to teachers. They can be boarded both cheaper and better at a large and well managed establishment, where grain and meats, fruits and vegetables are grown in the best possible manner, than in any village or city. A well cultivated, highly productive farm is not to be run away from to get an education, as something degrading in its rustic nature, but it possesses intrinsic advantages for maintaining the physical and moral health of youth, and for their comfortable subsistence, which cannot be elsewhere found. Hence, whether we regard the studies, or the associations of a strictly agricultural college, it is

calculated to make good students, sound, and thoroughly educated men. Discarding pedantry, and the foppery of learning, and all evasion of honest and faithful application to proper text books, surrounded by the beauty and freshness of Nature, improved by Art and Science, and removed from a thousand allurements to idleness and the neglect of study, which too often are met with in the precincts of educational institutions, it is easy to see that virtue, thought, and industry would be strengthened at a plantation college. Pure tastes, habits, thoughts and purposes, with their best fruits, may be fostered, cultivated and ripened, more successfully in rural retirement than amid the din, and strife, and recklessness of commercial towns, where vice and crime have almost unchecked sway. Already the best-informed denizens of cities are sending their sons into the country to be educated at farm schools; and nothing is likely to be more attractive than a well appointed agricultural college in any State of the Confederacy. Thousands of merchants and other business men look forward to the time when they may retire to little farms, cultivate their fruits and vegetables, rear their stock and poultry, and see everything flourish around their happy homes. The men of cities at the North have hitherto been the most liberal patrons of agricultural colleges—many of whom were born and bred in the country, and command eminent success in business from the mental and moral power thus acquired in agricultural districts. In a word, agricultural colleges have become a grand necessity in the progress of mankind to develop aright the natural resources of the earth, and of humanity.

L.

#### MANURE MAKING.

EDITORS SOUTHERN CULTIVATOR—There is nothing hazarded in asserting that among all departments, duties and labors of husbandry, there is none in which the planters and farmers of the South are so amiss as in the preparation of manures. No tillers of the earth are more industrious—in no other country probably do they perform so much manual labor in the course of the year. The farm work done in the Northern States, indeed in all grain and grass growing countries, bears no comparison to the amount of bestowed on our cotton and corn plantations. But in all the South, with here and there an excepted instance, very little or none of this labor is given to storing up manures and composts. Why so? Because we have been accustomed to plant on freshly cleared land, and not accustomed to those methods of procedure by which, in older and more experienced States the barrenness of fields is prevented, and those which have been permitted to become barren, restored to fertility. As ever happens in like cases, ignorance occasions distrust in our ability to accomplish anything valuable, and in our despair, we make little or no effort. It may be better to migrate to Texas, Kansas or Arkansas, plant fresh lands, breathe bad air, drink bad water, mingle with a rude and depraved population and meet an early death in a paroxysm of bilious fever, than remain at home in health and comfort, and encounter the trouble of fertilizing our own fields; but that is not my way of thinking.

If the farmers of New England, Pennsylvania and New Jersey had, as we have, ready access to the woods, the thousands of loads of leaves which lie at convenient distances, would every year be composted into first-rate manure for corn and other crops. Why would they do what we neglect? Only because they know by experience that the thing is quite practicable and that it pays better than any other work. This we of the South do not believe because we have never made trial of it. In the ignorance of our inveterate habits, we regard the fertilization of our old fields a matter of impossibility—and so in the hands of men who so think and act, it is.

The Old Romans carried on a system of husbandry greatly distinguished by its practical skill and bounteous results: but no Roman farmer ever thought himself able to produce crops without the benefit of his stercorary. It was deemed indispensable, because he most reasonably concludes that he might as well expect to fatten his bullocks or support his family without providing necessary food. In that day, the lights of modern science had not dawned, but by long experience and vigilant attention, husbandry, in all its departments, attained a perfection scarcely inferior to that of Scotland, England or Belgium in this age. Roman fields, like ours were chiefly cultivated by slaves; the climate, too, was much like ours, and why cannot we, with the benefits of theirs and the example of others, and the superadded advantages derivable from chemistry, geology and botany, become their rivals in the great art of arts, the art of crop-making? There is but one reason, the want of will and effort. Let us then throw off the incubus of our backwoods prejudices, stubbornly and stupidly adhering as they do, to a blind faith in *new ground*.

Having made a beginning, I intend, during the current year to prepare a stercorary, or receptacle for manures, perhaps more than one, from which I hope to carry out annually, many tons of such composted matter as will treble the crops I have heretofore made on the same fields. Should such an improvement of our plantations be resolutely undertaken and generally carried out, it is scarcely possible to estimate the augmented wealth of the country. Thousands of plantations in the older counties of Georgia as well as in the Carolinas and Virginia can be purchased from three to ten dollars an acre; but lands of the same geological formation in the Northern and Eastern States, under an atmosphere far less propitious to crops, readily sell for from forty to eighty dollars, and much more in the vicinity of market towns.

On the lower side of the lots on which my live stock are fed, I purpose to excavate a pit in the ground, some four or five feet deep, eight or ten wide and long enough to hold all the leaves that can be seasonably hauled from the woods, and all the waste fodder, shucks, straw, &c., and to receive the entire offal from the stable—solid and fluid. On all wet and other days when my laboring force cannot be employed in cultivating or harvesting corn and other crops, they shall be busy in collecting and depositing these putrescent matters in the stercorary. Indeed, I may deem it advisable to detail a fourth of my hands the year round to the labor of manure making on the plan here suggested. Any planter whose fields have been sterilized by a vicious course of cropping, might and probably would find his income greatly increased by the labor of three-fourths of his hands on manured fields—to say nothing of the pride and pleasure he would derive from contemplating the beauty and success of his own achievements. To raise the production of his plantation to two or threefold its present amount, and its intrinsic value from three to twenty dollars per acre would abundantly remunerate all the labor he might expend on each improvement.

In conclusion, I would invoke the aid of our more experienced husbandmen, in furtherance of this most important, but much neglected branch of Southern agriculture—especially on account of such contrivances and practices as would secure the largest quantity of putrescent manures. J. C.

*Blakely, May, 1857.*

**BLIND STAGGERS IN HORSES.**—*Editors Southern Cultivator*—At the request of one of your correspondents I send you a recipe for the cure of Blind Staggers.

As soon as the disease is discovered, bleed the animal from the neck copiously and then have cold water teemed profusely on his head till relieved. Try it.

**RECIPE FOR SCRATCHES IN HORSES.**—1. Bleed and take 2 quarts of blood from the neck of the horse.

2. Wash the feet affected with strong soap suds till perfectly clean; let them dry; then wash each affected part with a solution of corrosive sublimate. Two or three applications will effect a cure.

It is prepared thus:—Take a quarter of an ounce of corrosive sublimate and dissolve it in one pint of strong spirituous liquors, and it is then ready for use.

DOCTOR.

*May, 1857.*

#### LEVEL CULTURE, ONCE MORE!

**EDITORS SOUTHERN CULTIVATOR**—I have to-day read your always welcome journal. It has now almost become a necessity.

I find in your March number an article in reply to one of mine, published in your January number, from your Utica correspondent, Mr. G. D. Harmon, of Mississippi.

I feel gratified that, after the smoke of the contest has somewhat cleared away, I find Mr. Harmon and I are so nearly agreed. We both agree as to the deep—foundation—agricultural importance of the *best plan* to save our soil from washing away from us. We agree, in order to do this *every row* should be run upon a *dead level*. And we do not really differ as to the necessity for Side Hill Ditches, for that is a point I leave to the good sense and discretion of the planter, to be determined, *everywhere*—each one for himself.

The only seeming point, then, of disagreement between us now is as to the *fall* he gives them. And never having used the ditches myself, I have always said my objections were theoretical, and his plowing across, without turning, thus not increasing the number of short rows, obviates the strongest objections I urged against them. So far so well.

In closing this contest, then, I feel it so strongly on my own part, that I think I can safely assert it on his, that our only object has been to *awaken thought, beget action and elicit truth* on this all important subject; and, often this friendly tilt of ideas and experiences we have saved a *single slice* of Southern soil from washing away from us, we are content and amply compensated for whatever of labor the controversy has imposed upon us.

It affords me pleasure to add, that from the high estimate I entertain of Mr. Harmon's practical good sense and his enlarged experience, were I now to become his neighbor I should hesitate long before I would discard his Side Hill Ditches, and canvass very closely before I would even change the direction he gives them.

One word at parting, as to the "Mountains." In defining my position, geographically, as I was forced to do, and correcting his mistake in locating me among "the Heaven kissing hills," either of Middle or East Tennessee, he mistakes me much in thinking, even for one moment, that I designed to speak "reproachfully," much less "contemptuously" of "Mountain life." No! no! That I could not do. For I yield to no one in feeling sensitively alive to all the healthful, ennobling and inspiring influences of mountain air and mountain life. And I have sometimes felt that I enjoyed as positive an appreciation of mountain scenery and sublimity as was properly accorded to man.

I bow with reverence at the base of Ararat, Sinai and Calvary and regard their names even as sacred. But Noah remained not upon Ararat. He and his family descended from that lofty "resting place," going forth increasing and multiplying, until they come to the *plain of Shiner*. Thence they were scattered abroad to people this earth.

Moses, too, after being on Sinai for forty days and forty nights, in "the glory of the Lord," obeyed the express command of God himself, when he came down from the Mount with the two tables of the testimony in his hands, to arrest and punish the idolatry of the Israelites. And the body of Christ, mangled and desecrated as it was, was taken down from the cross and from Mount Calvary, carried to a garden and then placed in the sepulchre of Joseph of Arimathea.

Acknowledging, then, as I most devoutly do, the sublimity and the sacredness of these—God's great landmarks of creation; appreciating, too, as I feel I fully do, all the healthful, patriarchal, poetic and pious allurements and surroundings which so properly invest them, in using the expression to which Mr Harmon takes exception, I simply meant to *emphasize* the idea that though I might, either at home or in a trip for health or pleasure, cheerfully join him in his pious worship of all the "sacred mountains," or participate in his poetic inspiration around the "sparkling waters of Mont Vale," I thought, as a plain *Cotton Planter*, he had placed me *too high up* in the Mountain Home assigned me. And are we not now agreed even in this?

I have read a letter from one of your subscribers, whose name I cannot decypher satisfactorily, from Portland Dallas county, Ala. (it looks like Thos. Lang, Jr.) asking some questions, which I think it proper, in this uncertainty, to answer through the *Cultivator*—very condensedly indeed.

When my "level rows" meet a gully, I never straddle it with the level. I move the hind foot back, at such distance between the last two level points made by it, as to enable me to get the level with the fore foot resting on the edge of the "gully." It would then have only to dispose of the water falling in it. The manner of filling it must be determined by the different facilities within easy access to each one.

The distance between my "guide rows" is always dependent, principally upon the inclination of the surface—increasing the numbers as it is more abrupt and irregular. On a gentle undulating surface 15 to 20 paces between them has answered very well with me. Better, however, have it possible too many than too few on all land.

A span of 12 feet is a very convenient distance between the feet of your level. The mode of running off the rows I think, is clearly and correctly given by Mr Jones M Gunn of your own county, in the May number of the *Cultivator*. There is profit in its perusal.

By the bye! Speaking of *Gunns*, reminds me to tender to my brother in the Artillery, as well as the Agricultural department, my thanks for his excellent "stitches" in support of the "level system of rows and culture." He *shoots*, too, as well as he "*stitches*" I find; and I think he has effectually answered an anonymous article in the same number of your paper, over the signature of "Subscriber," in which the writer makes strong objections to what he chooses, though very mistakenly to characterize as "Col. Cannon's Theory"—that I feel I am saved the labor, and your columns the space of a more extended notice from me, than simply to say to "Subscriber," that his avowal that said article was "the first piece ever written" enables me the more readily to excuse him for mistaking my positive experience for "theory," and so misnaming it in his communication from "Cottage Place," and that neither my experience or "theory" should properly be held responsible for the imperfect work of either "early" or old settlers in his or any other section of country.

Very respectfully, H J CANNON.

Melton, Summerville P. O., Fayette co., Tenn., May, '57.

## THE COTTON GIN—ITS HISTORY, &c.

EDITORS SOUTHERN CULTIVATOR: In a late number of your paper, two articles appeared on the subject of the Cotton Gin. One, over the signature of the "Antiquary," the other, over that of "W. A. D."

The main object of the former appears to be, to defend the claim of Bull as the inventor of the Cotton Gin, the latter, to induce me to write its history. To the former, I would say, I do not intend, nor will I suffer myself to be drawn into a controversy as to the merits of the claims of Bull; and to the latter, that I will not attempt to write a history of the great invention alluded to,—but to both I will remark, I design simply to record, on the pages of the *Cultivator*, some facts that can now be established, and which, as is well remarked by W. A. D., "unless collected will very soon be lost." Moreover, if W. A. D. will refer to an early volume of your paper, I think he will find a history of the Cotton Gin, written by a committee of gentlemen, appointed for that purpose by the Southern Central Agricultural Society. I have deferred, so long replying to W. A. D., partly to collect some facts which I thought might be valuable, partly from other engagements, and partly—perhaps mostly—from indolence.

Before giving the few scraps I have collected, I will refer W. A. D., and all other enquirers, to my friend P. M. Nightingale, of St. Simons Island, as the most likely repository for authentic information now to be found. He is the grandson of General Greene, in whose family Whitney taught school at the time of the invention—and in possession, I presume, of many of his papers, and, I know, of many interesting anecdotes relating to this subject. The interest he takes in all such subjects, I hope, will induce him to excuse me for thus introducing his name. Indeed, his interest in the matter prompted him to promise, some year or two since, to collect and forward me interesting documents on this subject. Lest it may be lost, resting in frail memory only, I will record an anecdote which Mr. Nightingale told me concerning the invention. Mrs. Miller, in the family where Whitney was teaching, having a gold watch out of order and no watchmaker being convenient, and having confidence in his ingenuity, gave it to Whitney to repair, who performed the work successfully. Some short time thereafter a gentleman came to the house, having a fine sample of cotton wool, and while exhibiting it for the admiration of the family, remarked in the presence of Whitney and Mrs. Miller, that there was a fortune for the man who would discover a machine which would separate with facility the wool, or lint, from the seed of the cotton. Mrs. Miller replied, addressing Whitney, he was the very man, for she knew, since he had succeeded so well with her watch, he had ingenuity enough to make such an invention. After this conversation, Mr. N. says, Whitney confined himself to his room more closely than usual for some time, after which he asked the family in to see his model of a Cotton Gin. It was constructed with wire teeth on a revolving cylinder that drew the lint from the seed, but the great difficulty was the lint wound round the cylinder, there being no contrivance, it would

All subscriptions to the *Southern Cultivator* begin with the January number.

seem, to throw off the lint when detached from the seed. Whereupon, Mrs. Miller, who was standing by, seeing the difficulty, reached out for a common hair clothes brush, applied it to the teeth and caught the lint. Mr Whitney, with delight and excitement, exclaimed—"Madame, you have solved my difficulty; with this suggestion of the brush, my machine is complete." He then added the brush, on the principle now used, to detach and throw off the lint from the teeth that remove it from the seed. A few years ago, with much trouble, and at some expense, I procured part of one of Whitney's original cylinders with wire teeth and sent it to Augusta to the Agricultural Fair, for exhibition, where it was lost. It must still be in existence, I presume, in Augusta, and I hope if found it will be returned, that I may deposit it with our Agricultural Society, or some other institution where it can be preserved with the care due to such a relic.

When a boy, I saw John Lyon, and though at his house, have no recollection about him, except that I saw Mr. Lyon who then owned a mill. There are many persons in this county who knew and recollect all about him, and of his supplying the county with the few saw gins then used. But I have elicited no facts worth recording, except from Samuel T. Burns, his brother-in-law, and who worked in his shop at gin making, and from Thomas Anderson who is now over eighty years old. Both these gentlemen are in full possession of their faculties, and their word is beyond suspicion, even if there were a motive for misrepresentation.

Almost anything now concerning the early history of the great staple, and the invention which has contributed so much to its value, is of interest. Therefore, the excuse for stating what otherwise might appear trivial.

Mr. Burns promised me a written memorandum, some time since, which not having come to hand, I have concluded to delay my communication no longer for it. But he told me in conversation, that the saw gin was first made in semi circles and fastened on the cylinder. Edward Lyon, the brother of John, was a smooth faced young man, who dressed himself in woman's clothes so as to get in with them who only Whitney would let see the gin in operation, as was related to me by Mr Talbot, and mentioned in a communication I made to the *Cultivator* in 1852.

Thos. Anderson and Bolling Anthony, in 1796, were co partners merchandising at the residence of Anthony, some six miles north-east of this place. He thinks they were the first who bought cotton in the county. After they got a saw gin, they paid two dollars and fifty cents per hundred pounds in the seed. Lint Cotton sold in the county for about twenty-five cents per pound. In June, 1797, he went to Virginia with two loads of ginned cotton, of two thousand pounds each. He gave two dollars per day for wagon, team and driver, and found them. He had to go on ahead of the teams and provide depots of provisions for their consumption. He went to Bedford Court House, in Virginia, and sold out all his cotton, by retail, in a day and a half, for fifty cents per pound. He loaded back at Calloway's Iron Works, Rocky Mount, Virginia, with iron, at \$112 per ton. He made by his trip of forty-eight days, one thousand dollars clear, "but a heap of it was cut money."

Mr. A. says they first ginned with rollers, one hand to a pair. They had twelve pairs, and ginned from seventy-five to a hundred pounds a day. They had to keep a hand all the time turning rollers, they burned out by friction so fast. They got McCloud to make them a thirty five saw gin, propelled by water; it ginned some twenty-five hundred pounds seed cotton per day. He thinks the saw gin did nearly as well then as now, except it napped badly. McCloud was sued by Whitney

for an invasion of his patent. Mr. A. made a second trip to Virginia, with cotton, in October, 1897, "but the Carolinians had gone in and glutted the market," so that he got but forty-three cents per pound.

Mr. Anderson says, "sometime before," he thinks a year before, he had the saw gin, he was at what is now known as the Simon's, or Factory Place, at a battalion muster, when Whitney's gin was in operation, and the whole battalion were permitted to go behind and see the flakes of cotton thrown off the gin by the brush, but *none* were permitted to examine further. This Simon's, or Factory Place, is the one mentioned by Mr. Talbot, in my interview, alluded to in my communication in 1852.

Antiquary says, "About the year 1795, a gentleman from Baltimore—the father of Judge Bull, of L. Grange—settled in Columbia county, in this State, and introduced the Cotton Gin," &c. Now, Mr. Anderson shows that in June, 1797, he had four thousand pounds of cotton ginned on a saw gin, and some time before he had it, say in 1796, he saw Whitney's gin in operation. Now, there must necessarily have elapsed two or three years from the invention of the school teacher, on St. Simon's Island, before he could have patented his invention, got it into practical working order, settle a place in Wilkes, erected and set his gin to work. And this corresponds with the historical fact, that "Whitney's invention came into operation in 1793." Now, Antiquary says, "About the year seventeen hundred and *ninety-five*." (The italics are my own.) Bull, "from Baltimore," settled in Columbia county, even after the saw gin must have been in operation. For McCloud, as Anderson tells us, before June, 1797, had built one. It is very reasonable to suppose that some year or two must have elapsed after Lyon had invented the saw gin, before other persons could successfully take up the trade. And we must recollect that inasmuch as Bull came from Baltimore, where—it is to be presumed—he had never seen a lock of seed cotton, it would be some time before he would successfully direct his attention to the invention, to which must be added some time in working it out. And this is fortified by what Mr Talbot said to me, as mentioned in my communication of 1852, about Billy McLerran, the little Irish blacksmith of this county, making the saws for Lyon, "the first that ever were made."

I think nothing is to be inferred as to the *priority* of the invention from the fact that Whitney offered Bull a consideration to let judgment go against him. I presume Bull was sued for making a *saw* gin, as McCloud and others were in Richmond, Columbia, Burke, and perhaps in other counties. But I always understood the defences were put on the ground that the *saw* was no violation of the *wire* tooth gin. And I cannot discover why the offer might not have been, as well as if *this* were Bull's defence as if it had been on the ground of priority of invention. Indeed, it is a mortifying historical fact, that Whitney never obtained from the justice of her juries or the liberality of her legislature, a dollar for an invention that was an honor to the State in which it occurred, and that has made us all the money we, for half a century, have had, or ever expect to have. Notwithstanding the respectability of the authority given by Antiquary for this offer, yet there cannot be much reliance on such traditions, for it occurred some "sixty years since," and, I apprehend, before the author was born. Antiquary, in another part of his communication, gives an instance of the unreliability of such traditions, in his anecdote substituting the introduction of a man in female attire, surreptitiously into Bull's gin house, instead of Lyon into Whitney's, as is so well attested by Mr Talbot who lived in the immediate neighborhood, whose kitchen—I am glad to say, still standing—is the very gin house in which the incident occurred—by Burns, the brother-in-law of



Lyon, and, if tradition is to have weight, by every one who then lived in Wilkes county, where it occurred. Another one of those traditions by which the "integrity of history is so often falsified," is given by Antiquary—which gives, as it is thought, the year 1806 as the time when the first saw gin was made in Wilkes county by Edward Lyon. I have shown by a living witness that ten years before, the copyist of Lyon had made one. And Mr. Anderson mentioned that, besides the one McCloud made for him, Hanson, of this county had one; indicating that ten years before 1806 they were common in Wilkes county.

All this shows the wisdom of the suggestions of W. H. D., that if any thing is to be said on this subject, let it be done now while there are some living witnesses to many important facts.

Mr. Bull, I have always understood, was a very enterprising and ingenious man (mechanic, I presume) and may be entitled to the credit of inventing the cotton gin, and from what Antiquary says, probably introduced the iron screw. I have seen the iron screws and taps lying about our streets until within a few years. I think it probable they will be introduced again as wood becomes scarce and iron cheap. I have learned that the expense, when iron was so high, was the reason they were abandoned. An old citizen—always curious in such matters—told me, a few days since, that the Gilberts of this place had one which packed two bags at a time, and cost, with its complicated gearing, eighteen hundred dollars, and which they afterwards sold to some one in Augusta for one thousand dollars.

At the hazard of boring you and your readers with the tediousness of my communication, as I am down with my pen, I will tell all that I recollect to have heard about Whitney and his gin, though not to the credit of the "Empire State of the South." I understand from good authority, that Whitney died poor; and, if not in bad taste, or profane, I would say, for our sakes he became poor. It would have taken a crop of one of our largest cotton bag lords, at 14 cents per pound, to have withstood the expense of his unsuccessful litigation in Georgia. He lived and died bagless, though he has made more cotton bags than has ever been grown on the soil of "this glorious empire of ours," from 1795 to 1857. His descendants are poor. Tennessee, Alabama, South Carolina, I am informed, and perhaps other cotton States, have manifested their appreciation of his merits by material and substantial aid, while the great and magnanimous empire of his adoption has been worse than silent; for her juries when appealed to for damages for a violation of his patent, refused the verdicts for him, to which, I have understood, from tradition, the judges decided he was entitled. It is not too late, through his posterity, to manifest our gratitude to the great inventor.

I have always lived in hopes that Georgia would, in some lucid interval, be moved by generosity, if not justice, to discharge her great obligation, not to be barred by any limitation of time. And until she shall have done so, she should feel herself in an unenviable category, next to the repudiating States of the Union.

Though the course of my remarks have led me to speak of Whitney only, they will also in a degree, apply to Lyon and his descendants. Such men as these are the true benefactors of mankind. Where is the score of statesmen and warriors, mentioned in the history of Georgia, whose services are to be mentioned in comparison with these humble mechanics? Were it possible to strike out all which the former have done from the past, so uncertain are the consequences of State policy—that it is questionable whether we should not be benefited by the obliteration. But who so hardy as to doubt the blessings conferred by the latter? While piles of hard cash have

been directly and indirectly appropriated by way of emolument for the services of the former, while reams of unsullied white paper have been defiled by stilted preambles and exaggerated resolves, recording their merits, and clouds of empty gas vomited forth by our orators in praise of the former, hardly one has risen up even to call the latter blessed,—hardly one so poor as to do them reverence.

These views might be applied to the nation and the world still more appropriately, had I the space and time. I would be willing to name a dozen inventors and discoverers, to whom mankind is more indebted, than to all the warriors and statesmen who have lived for a thousand years. And great as is the difference in favor of the former, in the magnitude of the services rendered, greater, if possible, is the difference in the rewards in favor of the latter,

Hundreds of thousands are annually appropriated by Congress to foster a nest of the brass-button fledgelings at West Point; and like thousands were voted by that body, the other day, to increase the pay of the full-plumed, when a few coppers to furnish bed and board to some genius, whose talents and taste would prompt him to pursue a caterpillar till he could master its natural history, might benefit the nation more than millions annually appropriated for other more imposing purposes.

GARNETT ANDREWS.

Washington, Ga., May, 1857.

#### "DIVERSIFIED AGRICULTURE"—HOUSEHOLD Management, &c.

EDITORS SOUTHERN CULTIVATOR—I am very much pleased at a scene in your May number, gotten up by "L. J. S." in writing (as he says) "his first article for the *Southern Cultivator*." He takes our Dr. Lee, Editor, pretty plainly to task for changing his policy of Lecturing Farmers "strictly on Domestic Economy" to raise anything needed, so as to be independent, &c., and says the Doctor was, then, "in the right track." But that he has "now run into the popular breeze of the great cotton mania"—"the making of which has ruined Georgia lands, &c." Dr. Lee in his remarks has been very pleasant, and sustains himself handsomely in answer to L. J. S. when he says "that all needful reforms in society are effected by slow degrees, and often more by appearing to sail with the popular current than to be forever toiling against it." But after all, and on the whole subject of bettering the Agriculture of the South, I am ready to give the Doctor great and very great credit. The appearance of the "*Southern Cultivator*" found Georgia in a dilemma. Her farmers ready to, and actually moving to other new countries, where they might, by spending what they made, while wearing out one fine portion of country, wear out another equally rich, in making over again what they necessarily lost in the unholy movement. It cannot be denied that our farmers have grown wiser, in the appropriation of labor, by the *Cultivator*, and that the worn faces of our fields have put on different fronts—showing, that the country will again do to live in. I must stop, however, to give some credit to the contribution of our Mr. L. J. S., for that he furnishes Dr. Lee with scope and place to appear before the agricultural public in the very best essay on "Diversified Agriculture" I have ever read. It is also found in the May number, and I cannot too much commend it to public notice. But enough is here said by me on the subject of the right management to make money. The right use of it is really the important item in Political Economy. I mean the advancement of any people in worth instead of show—in solids instead of superfluous—and finally, in all the attributes that make communities desirable—the people more religious than hypocritical, and the world a better world. I hope that the

Editor, who has said so much in the right time and place, on the subject of *making*, will mix his remarks—in future—and dwell sometime on the right use or appropriation. But some of your contributors may say, what has this to do with farming. I will tell them. The safety and good progress of governments may be said to be in the hands of farmers. By a proper use of the treasure procured by our industry and skill, we might avert the dangers that await and control the destiny of society; but what are we now doing? We farmers and parents are ourselves laboring properly, (as we say) for *our children*; but, in reality, ruining them by the use of it. We send them into the world with pockets full of money to ride over communities, with three hundred dollar horses, and buggies of two or three hundred—strangers to business—less and less perfect in education—but with enough to see and follow the paths to the deterioration of society—unto the defacing of communities—and the loss of all hope in mankind—moreover, we are, by a sort of *man-education*, educating our girls out of their *native modesty* to suit the taste of our spoiled young men; and where are our hopes either for comfort in our children, or for preserving the purity of communities, effected only by raising better sons and daughters. The wickedness of a world was rebuked by the destruction of a “Sodom and Gomorrah;” and by perseverance in sinning, that world was destroyed by a deluge. Through the means of a “Noah and his family preserved” we have arisen to live, to thrive, and (in America) to do well for nearly the last century—we are *now* improving in agriculture and the mechanic arts; but we are certainly on the wane in true religion, and the attributes that make good men and women. I have no doubt that man’s selfish interest carries him further and longer in the improvements of the arts of living in luxury, pride and show, than he is found improving in the moralities of his nature, and devotion to his God. This is (as I think) our situation at the present time, growing worse and worse. We must soon come to a close—“wipe out, and begin of the new.” Cannot farmers do something to put off, if not avert the evil. I hope they will try! by governing their households better.

Culoden, May. 1857

W. R.

#### THE LAWS OF TRADE---NO FAILURE OF The Great Producing Powers of the Sugar Lands of Louisiana.

EDITORS SOUTHERN CULTIVATOR—But a small number of persons, especially among Planters, give sufficient attention to the laws of trade, to appreciate, or fully understand what is meant by the laws of trade; and as good proof of this position, we see it often happen that popular expectation is disappointed, or many planters raising certain articles with the expectation of obtaining high prices, but often disappointed, and consequently discouraged, the victim often throwing the blame on others, saying A., B., C., and D. recommend it. At this time some are planting increased quantity of cotton, thinking to obtain 15 or even 20 cents—others are planting Chinese Sugar Cane seed, believing they will obtain 60, 70 or 80 cents per gallon for Molasses. Twelve or fourteen years ago, Lead actually sold at some of the mines of Illinois and Missouri at \$1 per hundred, which low price suspended operations at many of the mines, and the laws of trade ordained that this low extreme should produce the other or high prices. Hence, by the laws of trade is meant, the effect will follow cause, or low prices will kill off competition, and high prices will excite the same. At this time the Sugar, and Syrup, and Molasses makers of every class are excited, and straining every nerve to raise increased quantities, and the host who are pushing into the raising of Chinese Sugar Cane have more need of caution than farther encouragement, for many of them are doomed to

disappointment in consequence of the low prices that will rule at no distant day, when the world will almost welter in sweets. Let those who doubt this stick a pin in it. And here I would correct a great error that many have fallen into, respecting the exhausted condition of Louisiana for making Sugar. The two last crops were short, and the last one almost, or quite unprecedentedly short, and such wide extremes of the last four crops conclusively show that the Sugar crop is subject to greater uncertainty than either Corn or Cotton, but little more so than Wheat or Tobacco. But how came Louisiana to be exhausted when scarcely half of her richest of alluvial land have ever been put in cultivation. These lands exhausted! What a humbug. The very lands that possess the most complete recuperating power of any on the globe, in the muddy floods of the Mississippi valley, making vast and rich of deposits wherever her mighty floods overleap the frail, yet useful protection of levees, dooming many to ruin for the present, but sowing the blessings of plenty for ages to come. Let those who believe that the sun, moon and stars will fail their usual course, believe also that the great Mississippi valley, the greatest Egypt of the world, will fail to be the garden producing valley of the world; that the levees of Louisiana will be overrun once or twice in a century, I think no one need doubt; to doubt it, would be to doubt the Divine care for keeping fruitful the most fruitful valleys of the world.

Now, in conclusion, a word of considerative advice to Chinese Sugar Cane raisers will be in good time to prevent much mischief. Go on, your excitement and enterprise is good to assist in developing the resources of your country; but expect low prices for the years 1858, '59 and '60. Then the too excitable competitors will be killed off, but the persevering will be well taught, and ready to reap the harvest of good prices that will follow the next low extreme.

M. T. McGEHEE.

Bradley County, Ark., May, 1857.

#### HIVES AND HIVING OF BEES---THE CHINA Beery.

EDITORS SOUTHERN CULTIVATOR—Mr. Stevenson desires further information about Bees, and I cheerfully comply. In making Bee hives, I do not dress the plank, it would be rather a disadvantage to the inside, causing the Bees to labor harder, to crawl and fasten their combs to a smoother surface; but it would give additional beauty and durability to dress and paint the outside. I do not perfume or rub the hives with anything. I have often put Bees in hives that other families have worked in, and they remain as well as in new hives. In order to hive Bees and keep them with the least trouble, it is necessary that there are no large or tall trees in 40 or 50 yards of the apiary, but there should be a sufficient number of thick top or wide branching small trees, or sapplings to shade the ground about the apiary. Such is the situation of mine, and about nine times out of ten my Bees settle on some small limb from seven to ten feet above the ground. I set my gum on the ground, or on a table, so lean and propped to one side, as to give a large opening at the mouth to receive the Bees. I next assisted, by a ladder, and one hand to help me hold steady and saw off the limb containing the Bees, convey them to the mouth of the gum, and giving the limb a slight but sudden shake, hey drop off, and immediately they commence running into and up the gum; and if they, as they sometimes will, crawl up in part on the outside of the box, a gentle rushing down with a broom will soon induce them to take the right direction, and when fairly in, the mouth, should be closed down, so as to leave only room enough for a free passage. As a preventive to their flight and re-settling again, they should be well sprinkled with wa-

ter, just before cutting the limb off. As soon as night comes, they should be moved home. I have no doubt but rubbing of perfumes on the hive is frequently the cause of Bees leaving, their smell being very acute, high scented perfumes no doubt distress them. The settling of Bees on the body of a tree that I am unwilling to cut down, I obviate by tying a bunch of cotton on the end of a pole, setting it on fire without blazing, and holding it near the Bees, so that the air will drift the smoke on them, which causes them to take the wing and settle at another place; and if they again settle wrong, I repeat until they settle right, and to avoid being stung, I suspend a silk handkerchief over my face. I do not loose exceeding 1-10th of my swarms, nor am I stung more than once in 20 hives.

Mix China Berries with chips when smoking meat, it is an excellent preventive against insects, better than sulphur or any other remedy I know of. Such is the result of 2 years trial of two of my neighbors and myself. Thanks to Mr. Wylie and Stephenson for their information about the China Berry.

M. T. McGEHEE.

Bradly County, Ark., May, 1857.

#### BACKWARD SEASON IN SOUTHWESTERN Georgia, Strictures, &c.

EDITORS SOUTHERN CULTIVATOR—Thinking my brother planters would like to hear of the prospect of the crops in this section, I will briefly tell them. In the first place, the spring has been unusually late, and most unfavorable for getting up seed, and when up, checking the growth of the plants with cold, and shortening them in by frosts, so that now corn is half the size it usually is, and cotton a bad stand, and where re-planted not up. If a late and disastrous spring will brighten the hopes of the spinners for a full supply of the staple from the growing crop, they may rejoice, but I think, England's millions dependent upon cotton for their bread, have cause for trembling. Every planter knows it is important to secure the first or under crop, as the two last are the most uncertain, and the re-plant cannot make the first, as the stalk will not be sufficiently matured to take it on, and thus, those who have re-planted or planted over, and they are many, become dependent upon the middle and top crop. New and strong lands may force out a full crop with favorable seasons, but the old and worn out lands of Georgia and Carolina or anywhere else, cannot, it is impossible with so late a start. That I know, for I once planted such lands. My planting experience extends back eighteen years, and I can truthfully say this spring is the most backward I ever witnessed, not excepting the year we had snow the 15th of April, and frost the next day. We have had in this section three frosts in April, the 7th, 15th and 23d—the first and last doing most damage, so much so, that I having, after planting my crop, enough seed to plant again, had repeated applications from those whose cotton was killed by frost, and some whose cotton never came up. My corn was three weeks in the ground before I saw the first plant, and my cotton is not a stand yet, though some has been planted four weeks. The present crop will be short 600,000 bales, and I think, unless very favorable seasons ensue, the growing crop will not diminish the decrease. I judge from news from abroad and observation at home, of the lateness of getting up the cotton, I consider the crop fully one month behind the last.

Will you permit an old friend of the *Cultivator* to say a few words about it, for all can see faults in their best friends. In the first place, I think it is departing from its old simplicity and assuming too much of a scientific order for the masses. After reading many of your articles, I have thought how many of your readers will be benefited, in proportion to the number, who understand them. Let us have plain bold theories to induce practice, and the

facts of that practice in words that all may understand. Suppose I made an experiment and began telling it to you in this language. In *experimentum agriculturum, plovem non breakabus estatum clodium, cum litatis eventutis, absurdo Itahium grassum*. Would you understand it? Just so, is the *Cultivator* becoming "dutch" to the masses.

Again, agricultural journals are becoming too much the channels for puffing extraordinary seeds, rare plants, wonderful trees, &c., inuring to the benefit of a few, and the neglect of the planter, for whose pleasure and improvement these journals are gotten up. If any one has anything to sell, let him puff it in an advertisement and pay for it. I do not say your paper does it, but I see a tendency that way. As an instance, the Chinese Sugar Cane has been an esteemed friend of the *Cultivator* for months, and in the May number just to hand, there are no less than five articles about it, besides the advertisement. The last I am glad to see, as I wish the paper not only sustained, but prospered. I mention the Sugar Cane only as an instance of the way new things are taken hold of, written about, and eventually written to death, when no more juice can be squeezed out, and then burned, as was the Multicaulis. I mean nothing personal, but as an old friend, I wish the *Cultivator* to keep up its old ways of telling new things.

I am truly, yours, REBEK.

Hopehazy, Baker County, Ga., May, 1857.

[Truly! the position of an editor is no sinecure! With as many different tastes and peculiarities as he has readers to suit he is fortunate, indeed, if in seeking to avoid giving one offence, he does not displease a dozen others. Knowing this, we have endeavored to make our paper a medium of *free discussion* on all matters connected with agriculture and rural life, allowing each and all of our correspondents to speak his own thoughts in his own way, but holding ourselves only responsible for our own opinions. There is little that is *new* and *interesting* to be said on the ordinary routine of planting, and it a treat to ourselves and the majority of our readers to have a fresh subject, and one that promises such practical and satisfactory results as the Chinese Sugar Cane. As regards the charge of being too scientific and learned for the masses, we plead "*not guilty*"—"on the contrary, quite the reverse"—and, were it so, we hold it better to endeavor to *raise* than to *lower* the standard of agricultural education. A gentleman who is, evidently so well versed in the classics as our friend "Rebek," will, we trust, never find himself "beyond his depth" in the plain and matter-of-fact pages of the *Cultivator*.—Eps.]

#### SHEEP RAISING IN THE SOUTH.

EDITORS SOUTHERN CULTIVATOR: I have read so much about the above, that I am tempted to give you our experience in that line.

Two years since, we bought forty head of ewes, have killed about thirty for mutton, have now one hundred head and one hundred and twenty lambs; four have died, and we lost several lambs that might have been saved if we had had better pasture to protect from hogs. They have cost us nothing except for salt and attention. The wool will this year be worth about \$120, which is half the prime cost of the sheep, and the lambs fully \$200 more—which will certainly pay—but they were attended to, and not left to run about and shift for themselves.

Arkansas River, 1857.

ARKS.

## HOGS AND PORK-MAKING.

EDITORS SOUTHERN CULTIVATOR—Can a planter afford to feed hogs when he can sell his corn at 80 cents cash, and a prospect in 3 days of its being worth 100 cents?—Can he afford to neglect his hogs, even if he could sell at 200 cents per bushel?

Suppose he requires 15,000 pounds of pork, worth say  $6\frac{1}{2}$  cents per pound, hauling, &c., &c., added, worth, say \$1000. The planter has 1000 bushels he can spare, and can sell for \$1000. He has the hogs, if well taken care of, that will give him the pork, and if not attended to he will not make the half of it, but admit he sells \$1000 worth, and has \$750 worth of meat, so he only buys \$250 worth and saves \$750. Is there economy in it? Hog stock neglected one year, may cut down the stock, so that in 1818, the planter would not kill \$500, and 1859 not that much. In the meantime, the demand increasing enhances price, and instead of  $6\frac{1}{2}$ , it may be 8 or more. Some planters argue that meat cannot be raised when corn commands 75 cents. Suppose it is so, but may it not be better to do so one or two years than to permit stock to run down, and when corn and cotton falls in price, there are no hogs to feed.

When corn commands 75 to 100 cents, peas and potatoes and pinders, and Sorghum (Sugar millet) should come in to supply most of feed. Not too late even in May to plant squashes, they produce much and cheap food.

A calm, working discussion of this question, would no doubt, be of much advantage. Not controversy, but just such a discussion as if we were anxious for every Southern man to see what is best for him and his country, not for the moment, but as a policy to be pursued.

Yours,

AN ENQUIRER.

Jones Hollow, April, 1857

## DESCRIPTION OF A SUGAR MILL.

EDITORS SOUTHERN CULTIVATOR—Take four pieces of timber 6 by 8, and mortice them together in the form of the ground sills of a small building; a fifth piece fitting exactly in the centre of end piece. Let the foundation be about 8 feet long and 5 feet wide. In the middle of each end piece, set an upright post 4 by 6 if you prefer, and 3 or 3½ feet high. These posts must be well braced on each side. Dovetail into the top of these posts a stick of timber 6 or 8 by 10 or 12, the wide side down. From end to end lay a floor upon the ground sills of 2½ or 3 inch plank, about 2 or 3 feet wide. Three holes must be made in this floor in a line for the necks of the rollers to work in—the centre hole round—the other two elliptical. Similar holes must be made in the beam above for the same purpose. The outer holes are elliptical in order to key them up to the centre roller, so that they may be almost in contact. The floor must be scooped out inclining gradually down from within a few inches of the holes to within an inch or two of the outside edges of the floor. This is for conducting and containing the juice as a reservoir, from which a pipe can lead the juice wherever it is wanted, or a play hole may be made to convey the juice into buckets.

The Rollers are usually made of Live Oak, turned in a lathe, from 18 to 30 inches in diameter. Cogs made of Hickory or other elastic wood are inserted in each roller near the upper end. The upper neck of the middle roller is larger than that of the others and extends through the upper beam 2 or 3 feet to afford a fastening to a long beam, which is made curved or inclining to the ground, and to which one or two horses may be attached to give it motion. The necks of the rollers should work in boxes, made of metallic composition, and the ends of the roller necks ought to be banded with iron. It is proper to *countersink* the cogs

It is customary to pass the the Sugar Cane through the

the two rollers on one side and back through the two on the other. When not in use, the rollers should be protected from the weather.

G. J. A.

Brunswick, Ga., May, 1857.

P. S.—I have complied with the request of your correspondent in the June number of the *Cultivator* as nearly as possible. I am no farmer, but I have seen hundreds of mills, and my description I believe to be correct.

## BALING COTTON WITH IRON HOOPS, &amp;c.

EDITORS SOUTHERN CULTIVATOR—As there seems to be a good deal of discussion going on among planters, as to the merits of baling Cotton with iron hoops, I believe it to be the duty of every citizen when he sees his fellows falling into error to warn them of that error.—There are several objections to baling Cotton with iron hoops. The principal of which is, the cotton presses in our sea-port towns will throw away the hoops, and make the planter pay for ropes, they not being prepared for that kind of business. Secondly, if using that particular mode of fastening were to come into general use, the price of hoop iron, instead of eight or nine cents, would soon run up to a much higher figure, and as iron hoops are a foreign production, we would be injuring the production of our own Southern States, which every true lover of his country should never do. There are also some few minor objections, such as the action of salt on the iron hoops in the holds of the vessels, and the cotton being packed with jackscrews in the vessels the fastenings are apt to slip off. The iron hoop is also worthless after it reaches its destination, the rope is worth something to make paper of the coarsest kinds with. I have packed Cotton myself with iron hoops several years ago, using two rivets, which cost ten cents each, but finding that the presses would not receive it, I abandoned it. We should recollect that all change is not improvement, and we should be careful how we suggest even a slight alteration in the management of a staple so necessary to the well being of millions as Cotton. I would make one suggestion to my brother planters, that is, never to pack cotton bales weighing over 450 or 500 pounds—you injure your screws, you wear out your negroes in treading it in the box, you waste time also, your bales being so heavy are torn in pieces by the handling of them with iron hooks. If any one would just walk around the depots of our railroads, and see the skinned and war-worn appearance of an 800 pound bale, he would easily become a convert to my opinion. This is only one side of the question. I am open to conviction, and would like to hear the opposite side.

"Dixit."

Burke County, Ga., May, 1857.

## THE SCARCITY OF SUGAR.

The Providence Journal has a very sensible article on the present scarcity of Sugar, and its consequent high price. It argues that there is but one way to meet the difficulty, and that is not to eat it. If every family would resolve to diminish the consumption of sugar one-half, or one third, the evil would soon disappear, and this sacrifice would really amount to but little. The present exorbitantly high price at which the article is selling must, as a natural consequence, check its consumption for the simple reason that the poorer classes, and even those of moderate means, cannot afford to buy it. The Providence editor thinks that the present high prices will have the effect to stimulate all the domestic sources of supply, and that the present year will produce great quantities from the maple and also from the Chinese Cane recently introduced.—*Balt. Patriot*.

## FARMING INTERESTS IN EAST FLORIDA.

EDITORS SOUTHERN CULTIVATOR—If a stream were to gush out of the ground, the first things borne on its bosom would be trash and all light substances; but as it swells and strengthens, the heavier bodies are washed up and borne off. The declivity is first sought, the meanderings of the stream laid off and its bed smoothed, and thus the heavy bodies float along unobstructed. It is to this I would compare the tide of emigration. When a new country is opened and its advantages made known, it is the floating population—the wayward, the dissatisfied, and the reckless and often worthless—who first settle in it. They are mere adventurers, and do not consider it to their interest to improve, but simply to destroy. They build shanties, cut down a few trees, make their corn, and trust to their rifles for meat. They are light floating bodies, and pave the way and make, as it were, starting points for better citizens. I consider them only a degree above the savage. The buffalo is the harbinger of the savage, the savage of the honey bee, the bee of the pioneer, and the pioneer of the better citizen. When herds of buffalo were seen winding their way westward, the Indian in the wake, the bee next made its virgin honey on the banks of the Mississippi, the axe of the pioneer sounded near behind, and soon the hum of the loom, the ring of the anvil and the click of the mill joined together in raising a new song, and opening a new era.

Every thing in nature performs its respective part. The vapors of the Ocean, after watering innumerable fields, return to it through a thousand channels. Though a part is absorbed by the flowers, a part drank by countless plants, yet it all returns at last to the bosom of its mother. It benefits every thing it touches, and every thing it touches benefits something else. We should not do evil that good may come, yet such is the case sometimes. The thoughtless boy may pluck a bud from a plant, and cause it to put forth a dozen more. The pioneers though they cut down and destroy and injure land, yet they mark the richest spots of a country, the places where the best water is found, and make trails that will do to cut roads by.

Such is the condition at present of many parts of East Florida. The way has been cleared, good farmers are moving in, and it is time to introduce system and improvement. We see very little in this part of the State, (Columbia county,) except corn and cotton. Every one, I suppose, makes his own sugar. The soil, mostly lime, will produce almost anything. Where there is such a great number of indigenous plants, it is only plausible to suppose that almost anything will grow. It is probable that small grain cannot be cultivated for market to advantage; but each farmer can make enough for his own use, and it is cheaper to make than to buy. The farmers that have been here some time are loath to believe that there is room for improvement. They have farmed the same way so long that it has become merely mechanical, and you cannot convince them that a change would be for the better. These old fogies are found in more places than in Florida—they are found all over the South. I am not a full believer in "Young America," but as the soil is somewhat different to what it was when my father plowed it, I see fit to plow it in a different manner. I would just as soon wear my father's old blue saad-tail I was travelling in North Carolina last fall, and noticed a very poor, feeble horse attached to the stage with a very fine one. I remarked to the driver that that was bad policy. "Humph," said he, "two poor ones couldn't pull the stage; besides it is the custom."

Farming now occupies the highest position, and he who only raises one or two things should not be classed among farmers. The idea is, to take a given quantity of

land and cultivate it to the best advantage, with an eye single to economy of time and labor. I can not be convinced to plant cotton alone, and buy necessities. To the farmer is given the seed of everything that grows, and he should cultivate them accordingly. As a man is expected to cultivate the faculties of his mind, and he is the most perfect who keeps them best in equilibrium, thus the farmer should cultivate all that is given him, and he is the best farmer who cultivates most to advantage.

From the field to the orchard. After looking at the variety in the field, corn and cotton and cotton and corn, we go to the orchard and find a variety of peach trees and trees-peach. Though the peaches are scarce, yet they are the largest and best flavored I have ever seen. A little attention alone is needed, and why, when bilious attacks are so common, is it not bestowed? Apples are not known. The same family, persimmons, haws, &c., grow here, and why not they? Oranges cannot be cultivated to advantage in this county—most of them were killed last winter—but we can have a few for ornament. The pomegranate and the fig grow finely; the pear I have not seen tried.

Now, from the orchard to the vineyard! It is no where to be found. I think the whole class of Pentandria Monogynia will grow here. There are vines of every description. I am from North Carolina, the native spot of the Scuppermong, and how I miss them!

All those things should be attended to, for a farm cannot smile without them. It adds infinitely to appearance, to say nothing of the luxury. In a Southern latitude like this, almost tropical, what is better for health than an abundance of fruits?

Every thing about a farm should be pretty and neat. I regard economy as a moral obligation. What is more instructive to children than neatness and economy? It trains their minds, it gives them good wholesome ideas, and fits them for after life. They are taught to abhor carelessness and disorder, and I might say that the former—carelessness—leads to dishonesty; its ally is negligence, and its greatest enemy frugality.

Nothing is more attractive than a highly embellished yard. It causes one to love home and linger there. There is an association with every tree and plant. The old shade trees, yielding at last to mutability, but unchanged for a long time,—how pleasant it is to wander back to the home of our childhood, and view those speaking monuments of the past. How many recollections! Oh! how fondly we think of youth and its young dreams. The ivy creeping on the chimneys—the terraces around the old oaks—the multiflora hanging on the poplar—all have their associations, and call to mind events long since forgotten, emotions that no other objects could excite.

I conclude this rambling letter by asking for information. Will you, or some of your correspondents, be so kind as to give an elaborate treatise on the cultivation of Sea Island Cotton and Sugar Cane? I can find nothing in the Patent Office Reports, and know not where I can get information. A kind of agricultural and meteorological treatise, I would think necessary. We have no State geologist; a grand mistake, and we only know that we have a lime soil. The climate is somewhat peculiar, as might be expected in a Peninsula. The Gulf Stream must have its influence, the salt breezes have their effect, and "when it rains, it pours," and Lieut Maury might infer something from the quantity of electricity in the thunder storms. I think an interesting article might be written. Who in Florida will write it? R. R.

*Little River, E Florida, May, 1857.*

A swarm of bees, it is said, contains from 10,000 to 20,000 in a natural state, and from 30,000 to 40,000 in a hive.



## CLEARING SWAMP LANDS.

EDITORS SOUTHERN CULTIVATOR—It seems that the most of your correspondents take position in favor of clearing up and cultivating the swamp and pond lands, and it is my honest opinion that if the commanders of this important subject were to give it a calm and dispassionate consideration in all of its ramifications and not depend so much upon imagination and supposition, they would find that much hard labor and money is disbursed for that which has never returned, nor ever will return ample recompense. I do not write from imagination or supposition on this subject, as the most of your correspondents do; but I write as an individual who has had full experience in the cultivation of swamp and pond lands. My father has got just as good swamp and pond lands as there are in the State of Georgia, and has taken just as much pains in clearing it up, ditching, and subsoiling it as any man could have taken, and notwithstanding he has had his pond land in cultivation, particularly for the last five or six years, it has never paid him for the money and time which he consumed in ditching it; and except through contingency, it never will. There are two things particularly to be taken into consideration in regard to the clearing up of swamp and pond land, and two things, I have no doubt, if they had their practical bearings among the people, would cause a great many who are now involving themselves head and ears in debt to Irishmen for cutting moats to dry their lands, to refrain from doing it—the first is, the amount of money and time that is to be consumed in putting it in the right plight for cultivation; secondly, the precariousness of the crop after you get it in the right plight for cultivation. And I know of individuals in my own neighborhood who have immersed themselves into their swamps from the want of forethought or common sense, I know not which, and have been broken totally and absolutely forever by not having the means sufficiently to pull them out. And I would advise every individual, as well as myself, who has to exercise dubiousness of the weight of his purse, to keep out of those swamps and ponds. J. W. Ol.

Jefferson County, May, 1857.

### ROTARY DIGGERS, SUBSOILING--CONCRETE Houses--Green Manure, &c.

EDITORS SOUTHERN CULTIVATOR—In your May number of the *Southern Cultivator* I find, as usual, many useful hints and statements. Among those I remarked Mr. Nelson's brief notice in regard to Gibb's Rotary Digger. I have seen that Digger in operation, and I agree with Mr. Nelson on all points. Subsoiling even if it could be done by that machine, is very good, but will never make a permanent deep soil. The subsoil can be broken and thus answers for one crop or season. However, nothing makes an actually lasting deep soil, but mixing and assimilating the substrata with the vegetable soil. I would not advise any farmer to bury the top soil deeply under, all at once, and bring up the inert clay, but to do it by degrees two inches of red clay or any other dormant subsoil with the exception of pebbles or coarse gravel, mixed with 6 or 8 inches of the cultivated upper soil will not affect its fertility; on the contrary, it will give new strength to the old crust and bring in it some of the potash or lime usually to be found in our subsoils, where they are deposited by their specific gravity. Three years of such a treatment in succession would make a good bed for the roots of all the farm products; it would add six inches of new soil containing new and vigorous elements to the old soil deprived of most of the substances to be found in virgin soils; after that, subsoiling would prove more effectual. In the Old Country where land is scarce and population

thickly settled, thorough cultivation of the soil is a necessity. I have often witnessed the wonderful results of deep cultivation on rather poor soils, and I can safely recommend it.

One of the very best methods is the following:—A furrow is made with a one or two horse team, according to the quality of soil, (clay or silicium,) using a plow with a mould board which throws the sod over fairly. In the same furrow follows an ordinary plow with two horses, and if the first furrow is opened wide enough, all the sod or ill weeds will be buried deep enough so as to be covered partly by two or three inches of the subsoil. The Michigan Double Plow does it well enough, but it requires four horses or mules; and I think those two separate double teams accomplish the work better and with a great deal less traction.

This result cannot be obtained by Gibb's Digger, which as, Mr. N. remarks, does the work of a mole, and is altogether too heavy, too complicated, and too high in price to be used extensively. Complicated machinery, clogging easily or getting out of order at a great distance from the black smith shop, should be avoided on large farms. But the best results of double plowing is the burying of the ill weeds and their destruction by a fine growth of the next crop.

In some parts of Belgium, where pine woods are sown and planted as regularly as cotton or sugar crops, the *heath* can only be subdued by turning up the subsoil, poor as it is, and covering the heath sods, so as to let the pine seed have the start, before the heath can make its way to the surface and destroy most of the young pines, very weak in their first and second years growth. Absence of ill weeds is, in most cases, as good, if not better, than manure; and to prevent their baneful influence on any crop, deep burying of the plants and roots is the cheapest and best remedy.

In regard to your article upon Concrete Rock walls and their durability I will only state that I have known a large and fine residence built in that way, perhaps some hundred and fifty years ago, four stories high, in perfect state of preservation. I allude to the conspicuous residence of Col. Nightingale on the Southern point of Cumberland Island, Ga. This building is in close vicinity to the ocean, and exposed to all kinds of storms from the main deep, it is built on the same principle, with nothing but oyster shells in a mortar of the same *burned oyster shells* and white sand. It has stood there for more than a century, and shows no sign of decay. If oyster shells, will do I guess rock or granite will do much better.

While I was with you, I heard many complaints about the scarcity and high price of manure. I believe a plantation could be benefited a good deal by turning under green crops; for instance in planting corn could you not find some rank growing herb or plant to be sown in the empty space between the rows of the corn; as your cow peas or any other fast growing plant? If that could make a growth of 4 or 5 inches with thick stems and spreading foliage as the pea, before the first plowing of the corn. It could be buried, and bring by its decomposition potash and other principles for the use of the corn plant. Albeit I would strongly recommend a late crop of such kind of plants after the corn is removed to be turned under late in November, before any frost would kill it, and diminish its fertilizing properties. In my country *spergula* (a good food for cattle on light soils) is often used as the only manure for rye and with a very good result.

I am aware that the objection to my plan of a green crop among corn would be the difficulty of the operation. It would, of course require a deep furrow in the middle, while in the ordinary way there is only two light furrows for the corn and no middle plowing; but I will try it as soon as possible.

Yours, &c., B.

## FEEDING MILCH COWS ON TOMATOES, &amp;C.

We tried an experiment in feeding milch cows, that did so well with us that we will give the facts, and perhaps it may be tested by others, and prove equally satisfactory to them.

In planting cotton we left two rows together, in which no cotton seed were dropped. About four feet apart in each row, we had the soil dug up with a grubbing hoe, about a foot deep, with about two spades of manure well incorporated with loose earth, and made into a flat, low hill, or bed. When a good season came, we planted a tomato plant (large round red) in each hill. They were worked with the cotton, and came very finely. Our squash patch was pretty large, and planted with a view to feeding cows.

For two or three months we were able to have a half bushel or three pecks of tomatoes boiled with about the same quantity of squashes each day, and given to four cows. The results were remarkable. The quantity of butter exceeded the usual average for that number of cows; but what was the most striking result, and that which we had not anticipated, was the beautiful yellow color, and delicious flavor imparted to the butter by the tomatoes.—*So. Ca. Agriculturist.*

## THE SHADOWS OF CHILDHOOD.

God bless the little children! We like their bright eyes, their happy faces, their winning ways, their rosy dreams! Nothing seems to weigh down their buoyant spirits long: misfortune may fall to their lot, but the shadows it casts upon their life-path are fleeting as the clouds that come and go in an April sky. Their future may, perchance, appear dark to others, but to their fearless gaze it looms up brilliant and beautiful as the walls of a fairy palace. There is no tear which a mother's gentle hand cannot wipe away, no wound that a mother's kiss cannot heal, no anguish which the sweet murmuring of her soft, low voice cannot soothe. The warm generous impulses of their nature have not been fettered and cramped by the cold formalities of the world; they have not yet learned to veil a hollow heart with false smiles, or hide the basest purpose beneath honeyed words. Neither are they constantly on the alert to search out our faults and foibles with Argus eyes; on the contrary, they exercise that blessed charity which "thinketh no evil."—*Exchange paper.*

**SIMPLICITY OF ENGLISH DRESS.**—In the families of many of the nobility and gentry of England, possessing an annual income which, of itself, would be an ample fortune, there is greater economy of dress, and more simplicity in the furnishing of the dwelling, than there is in many of the homes of our citizens, who are barely able to supply the wants of the families by the closest attention to their business. A friend of ours, who sojourned, not long since, several months in the vicinity of some of the wealthy landed aristocracy of England, whose ample rent would have warranted a high style of fashion, was surprised at the simplicity of manners practiced. Servants were more numerous than with us, but the ladies made more account of one silk dress than would be thought here of a dozen. They were generally clothed in good substantial stuffs, and a display of fine clothing and jewelry was reserved for great occasions. The furniture of the mansions, instead of being turned out of doors every few years for new and fashionable styles, was the same which the ancestors of the families for several generations had possessed—substantial and in excellent preservation, but plain, and without any pretensions to elegance. Even the carpets on many suits of parlors had been on the floors for fifty years, and were expected

to do service for another half a century. With us how different is the state of things! We are wasting an amount of wealth in this country on show and fashion, which, if rightly applied, would renovate the condition of the whole population of the world, and christianize, civilize and educate mankind.—*Calendar.*

## COTTON AND CORN IN MISSISSIPPI.

**EDITORS SOUTHERN CULTIVATOR**—I have planted over one-sixth of my cotton crop, and fear I should not have stopped. This is the first time I have had to do so,—this my 27th crop. I will plant over my entire crop of corn. found upon careful examination on the 25th that so much is killed, that it is unwise to trust to the *living*. My corn had been harrowed, thinned to a stand, and all plowed out.

I learn from several, that the "plowing up" and "planting" are the words now generally used by planters when talking about their crops. Some have plowed up and planted over all cotton, others are at, some more and others less, of their corn. Cotton seed are very scarce and in demand.

Having kept a daily record for these 27 years, I can, after looking back, speak more definitely than many of my brethren. Ice, with the thermometer at 31 degrees on the 24th April, stands "solitary and alone," "without a rival" for the coldest mean so late. I remember, that in 1816, in June, about the 16th, I think, we had a killing frost. At that period of my boyhood, I was required by my systematic father to keep notes of passing events, and my memory is drawn back to that occurrence, though I am not positive as to the day.

What will corn and meat be worth in 1858? Planters of the South, what say ye? *Everybody* here is planting every acre of cotton possible.

Yours, truly,

M. W. PHILIPS.

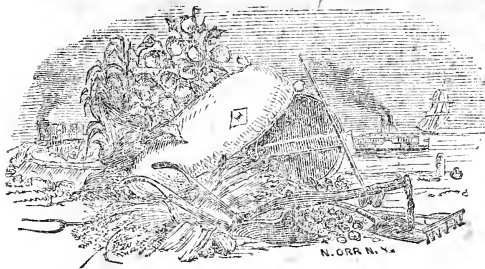
Edwards, Miss., April, 1857.

## COTTON THRESHERS.

**EDITORS SOUTHERN CULTIVATOR**—To your Texas correspondent, "J. W. Speight," I would say that some ten or fifteen years past, Cotton Threshers were very common in Alabama, particularly the southern portion of that State. A resident of Mobile by the name of Livingston, (I do not recollect his first name) patented a Thresher and made and sold a great many, and my impression is, sent a good many to Texas. About five years ago I met Mr. Livingston in New Orleans, then on his way to Texas and I think he then informed me that he was still selling those machines. My impression is that they are generally laid aside, planters relying on the late improvements in the Cotton Gins. I have seen various patterns in operation. Livingston's was the best and I think they were of but little service. J. T. D.

Thomaston, Miss., 1857.

**HAVE YOU WATER IN YOUR STOCK YARD?**—If not, listen to advice, and if it is possible, introduce it—either set a ram or windmill, or one of the self-acting wells, or lay a pipe from a spring on the hill, or throw a dam across the brook and lay a pipe from that—some how or other manage to have flowing water and plenty of it, so as not to drive your stock to the brook, or have to pump, or turn a crank half a day to draw water for them. One has no idea of the convenience till he has tried it. Sit down and make an estimate of the time it takes in four months to draw water for forty head of stock, or to lead or to drive them an eighth of a mile to water, and our word for it, the water will come in a pipe if there is any such thing. So says the *Homestead*, and so say we.



## The Southern Cultivator.

AUGUSTA, GA:

VOL. XV. NO. 7.....JULY, 1857.

### ANSWERS TO CORRESPONDENTS.

**BEST COWS FOR MILKERS.**—W. H. M.—It is hard for us to answer this question. In proper localities, and with an abundance of suitable food, some branches of the *Durham* family are unequalled for quantity. The *Ayrshires* and *Alderneys* are famous in England for richness of cream and fine quality of butter. We have heard the *Raiburns* and grade Brahmins highly spoken of; but as yet, they have scarcely had a fair trial in this country. The *Bernese* cattle (from the Canton of Berne, in Switzerland) are noted throughout Europe as milkers, and we observed that they created a great sensation at the late French Exposition. For beauty, hardiness, adaptation to the South, good beef, and fair milking qualities, however, our own experience induces us to prefer the pure bred *North Devon*s, of the Patterson stock—such as mainly compose the herd of Mr. PETERS, of Atlanta, and others which have heretofore been fully described in these pages. We shall be glad to get the experience of our friends who have tried the improved breeds of cattle, in various sections of the South.

**CURCULIO.**—H. W. R.—Your communication will appear in our next number.

**CONCRETE AND CLAY HOUSES.**—E. S.—Our clay negro house is not yet finished or fully tested, but so far we are entirely pleased with it. We used common red clay, moderately tenacious, slightly wet up, sprinkled with cut broomsedge or pine straw, and well mixed with a hoe, like common lime mortar. A mud-mill, such as is used in brickyards, would, of course, greatly facilitate the operation. There should not be much gravel in the clay, and it should be packed into the boxing as dry as possible, and rammed down hard. [For mode of constructing boxing, see May number, page 152.] If the clay mortar is made thin, it will crack too much in drying. Therefore use as little water as possible, and mix or "temper" the clay and straw well together. The door and window frames must be of three inch pine, and as wide as the wall is thick, say, one foot for a small building. If these frames have a "priming" coat of paint before they are set into the wall, they will absorb less moisture from the clay and weep less. The "plates" are the size of the wall, 12 x 3, and are laid flat on the top course of clay, bedded down even with a little thin mortar. The girders rest on these plates in the usual manner. The rafters must extend at least two feet beyond the eaves, so that the vertical rains may be kept from the wall, and for architectural effect also. We eschew outside chimneys—they are unsightly abominations. Our chimneys, of brick, are all inside,

and each one gives us two good fireplaces. The partition walls separating the different apartments or houses are also of clay, one foot in thickness, and running up to the roof. These inside walls will all be finished with one good coat of "brown (lime) mortar," and neatly white-washed. The outside will be "flushed off" smooth with fine clay mortar, and when that is thoroughly dry, so there is no danger of cracking, a thin coating of mastic, or common hydraulic lime cement, will make it impervious to all the rain that may beat or spatter against it. Mr. JAS. F. MURPHEY, of this city, has been with us from the beginning of our building operations, and thoroughly understands the process of erecting *concrete* and *adobe* houses. He might be induced to go to your village, if he could be assured of a remunerative contract. A letter addressed to him (care of D. REDMOND) will receive attention.

**SAW MILLS.**—A subscriber says: "Lumber is scarce and hard to get here, I wish you would ascertain the *cheapest* and *best* engine and saw mill to saw lumber, and inform me through your columns." &c. Will such of our readers as have had the proper *experience*, answer this question?

**CORN MILLS FOR MEAL.**—E. S.—Felton's Mill might answer your purpose. Address the agent, DANIEL CHAPPEE, Augusta, Ga.

**REPRINTS.**—The demand for our paper has been such that we have been obliged to reprint the January and February numbers of present volume. This fact will account for the delay in forwarding sets, which will now be filled up as soon as possible.

**ILLUSTRATIONS.**—We have, in preparation, an engraving of "Fruitland Cottage," and a plan for a simple and cheap Mill for grinding the Chinese Sugar Cane. We hope to be able to give both in our August number.

**CONCRETE HOUSES.**—In answer to several inquiries, we would state that the May number of the *Cultivator* contains all the necessary directions for constructing *concrete* walls. Any person who reads these directions carefully and follows them out, can erect a substantial and durable house. The earlier it is commenced the better, as the walls should be thoroughly dry before the fall rains come on. Those who desire a competent superintendent in the erection of such a building or buildings, may address JAS. F. MURPHEY, (care of D. REDMOND,) as elsewhere mentioned. Any intelligent bricklayer or mason, who understands the use of the trowel and plumb-line, can carry on the work successfully.

**HEN PERSUADERS.**—The *Springfield Republican*, in speaking of a new invention for a hen's nest, whereby the eggs drop through a trap door, and so deceive the hen that she keeps on laying, is responsible for the following:

Blobbs met with a loss, however, with one of the persuaders. Blobbs had a lovely young Shanghai pullet of boundless ambition. Blobbs bought a persuader, and his lovely Shanghai used it. She went upon the nest in the morning. Blobbs saw her go, and his heart bounded within him. Alas! he never saw her come off again!—At night he visited the persuader. In the upper compartment was a handful of feathers, a few toe-nails and a bill. In the lower compartment were three dozen and eleven eggs! Blobbs saw it all! Her delicate constitution had been unequal to the effort, and fired by young ambition, she had laid herself away!

## OUR BOOK TABLE.

**HOW TO BEHAVE;** A pocket Manual of Republican Etiquette and Guide to correct Personal Habits. Embracing an exposition of the principles of good manners; useful hints on the care of the person, eating, drinking, exercise, habits, dress, self-culture, and behavior at home; the etiquette of salutations, introductions, receptions, visits, dinners, evening parties, conversation, letters, presents, weddings, funerals, the street, the church, places of amusement, travelling, &c., with illustrative anecdotes, a chapter on love and courtship, and rules of order for debating societies. Price, post paid, paper, 30c, muslin, 50c. New York: FOWLER & WELLS, 308 Broadway.

We have no great opinion of works on Etiquette generally, but this seems to be an honest and earnest little book, designed to aid the young people of our great republic in becoming true American ladies and gentlemen. The author evidently deserves to make his readers something better than mere imitators of foreign manners, often based on social conditions radically different from our own—something better than imitators of *any* manners, in fact, and has dwelt at greater length and with far more emphasis upon general principles than upon special observances, though the latter have their place in the work. It seems to have been his first object to impress upon their minds the fact, that good manners and good morals rest upon the same basis, and that justice and benevolence can no more be satisfied without the one than without the other.

The work is essentially different from any other manual of etiquette, and will aid, we hope, in building up a truly American and republican school of politeness. It may be had, *post-paid* from the publishers on the terms above stated.

## A NEW YORK COTTON CIRCULAR.

We were yesterday handed a New York Cotton Circular sent out by the steamer Asia, from the house of T. J. STEWART & Co., dated New York, May 27, from which we make the following extract:

The accounts from the cotton growing section have been continuously favorable. There is no longer any question about the probable issue of the crop, as it now bids fair to be the largest ever grown, after allowing for all the accidents to the planting which have been noted from Mississippi and Alabama we have very good reports of its progress. From Columbus, Ga., we have had very disheartening advices; these are evidently disappearing, as we find in a newspaper published at Montgomery, Ala., the following extract of a letter from their correspondent at that place, dated as far back as the 7th instant.—“The recent rains have caused corn and cotton to come up in great abundance, and to use a homely phrase, they are now spreading themselves. There appears to be excellent stands generally. I am of the opinion that many planters are more scared than hurt”. From Louisiana, Florida and Texas, the accounts are still more favorable. We learn that the Arkansas and Red Rivers are now rising. This will add materially to the receipts at New Orleans. The figure for the present crop will evidently be between 3,000,000 and 3,100,000 bales.

Your obedient servant,

T. J. STEWART & Co.,  
Cotton Brokers, No. 140 Pearl near Wall-st.

We frankly confess that we have rarely seen such a tissue of misrepresentations, (we are not sure that this

term is not strong enough) thrown together in so brief a space. We have been reared and always lived in a cotton growing State, and we have never seen such an unfavorable season, nor have we met a man, whatever his age, observation or experience who ever saw a season thus far so unpropitious for the growth of cotton as this. There is no section of the cotton growing region in which the cotton plant is not all of three weeks behind the average seasons in growth and appearance. It will, therefore, require one of the most favorable seasons ever known, to make even an average crop of cotton. These facts are well known to every intelligent and well-informed man in the Southern States, and yet Messrs Stewart & Co. have the cool effrontery to assert, that “*the crop now bids fair to be the largest ever known!*” These men in their anxiety to depress the price of cotton overleap themselves. If they knew anything of the growth of the cotton plant they know better; and they must also know, that such statements cannot deceive intelligent Englishmen.—*Chronicle & Sentinel*, May 31.

**OUR SENTIMENTS.**—In a late speech, Gen. QUITMAN said: “It was remarked by the gentleman from Georgia (Mr. Cohen) that ‘the world was in arms against us’ on the subject of domestic slavery; but with the cotton plant, a fertile soil, and slave labor, we have but to be true to ourselves to maintain our position, regardless of consequences. And I say to you, gentlemen, that it is our duty to maintain our equality *at any and every hazard.*”

## CULTIVATION OF COTTON.

**THE New Orleans Delta** says:—The production of cotton in the United States increased nine per cent. per annum, from 1845 to 1855, while the increase of demand was sixteen per cent. If this ratio continues through another ten years, there will be an annual deficit of nearly 500,000 bales. The United States produce more than three-fourths of the whole quantity obtained in the world. There are 400,000,000 acres of cotton lands in the United States, of which only 28,000,000 are under cultivation. About 550,000 slaves are employed in cotton culture. Should the demand for cotton continue to increase, the questions will arise, how is the amount of available labor to be increased, so as to supply the demand? By what means can the United States continue to keep the lead of the world in the production of cotton? These are questions to which we do not presume to give an answer at present.

**TO CLEAN WALL PAPER.**—Soiled wall papers may be made to look as well almost as new, in most cases, by the following expedient:

Take about two quarts of wheat bran, tie it in a bundle in coarse flannel, and rub it over the paper. It will cleanse the whole paper of all description of dirt and spots better than any means that can be used. Some use bread, but dry bran is better.

**CROPS AND WEATHER IN TEXAS.**—The corn and cotton crops in this county, although rather backward, look well. There is generally a good stand, and with a good season, which we think is more than probable, there will be fine crops. Vegetation is not suffering in this vicinity for want of rain; and some of our most experienced farmers say that they are more afraid of too much than too little. There is now every appearance of rain.—*Texas Advocate*, May 16.

## EDUCATION IN RURAL DISTRICTS.

In an able and interesting report, made by the President of the Virginia State Agricultural Society, PHILIP ST. GEORGE COCKE, Esq., we find the following earnest appeal in behalf of popular education in the Old Dominion:—

"Seventy thousand of our adult population can neither read nor write! And these, too, are 'bone of our bone, and flesh of our flesh,' they are Virginia's sons and daughters! In the name of humanity! in the name of all that is generous, unselfish and noble in our nature! in the name of country, of Christianity and of God! will the farmers of Virginia any longer permit the existence of this deplorable state of ignorance. If my humble voice could be heard beyond this assembly, I would say to the farmers of Virginia, consider that your children, aye, the descendants of the richest of your present number, will inevitably in after generations be numbered amongst the poor. Transport yourselves then, in imagination, but thirty, forty, or fifty years into the future, and whilst you yet live, make yourselves the tender and blest fathers of the poor, and shed abroad your hearts and means until every child within the limits of our broad Commonwealth shall, at least, have the advantage of a Free School education."

We rejoice to see the leading minds in the noble Mother of States so devoted to the cause of educating the poor, who are unable to educate themselves. They are often the descendants of the wealthiest families; and in future, changes from affluence to poverty are likely to be more frequent still, as the fatness of wealth with its indulgencies, and the sharpness of want with its energies, make rich men poor, and poor men rich, as rapidly as the seasons change from Spring to Summer, Summer to Autumn, and Autumn to Winter. But we prefer to let the eloquent Virginian be heard in our editorial columns, rather than our humble selves, in the matter under consideration. He says:

"It is a very remarkable fact, that amongst all the numerous and varied pursuits of man, the very one of those pursuits which has the most intimate, the most extended and often the most recondite connection with all the laws of physical nature, with all science, with all art, in short, with the whole range of knowledge—a pursuit, too, upon which depends the subsistence and the very existence of the human species—upon which is based the well-being, the happiness, the progress and prosperity of individuals, of States and of nations. It is remarkable, I say, that the pursuit of agriculture should be the *last* and the *least* to be benefitted and advanced by all the vast progress that has been made in other departments of skill, knowledge and industry. And why is this? First, the science and art of agriculture having their infinite connections, near and remote, with all knowledge, the general subject is more difficult to be understood and fully known, as it is one of the most extensive and recondite that can engage the human mind; and in the next place, because throughout all history, and in every country, the very men who are most engaged and interested in agriculture, have been precisely those who have been least cultivated and improved by means of scholastic exercises and education suited to their pursuits."

The last remark above quoted hits the nail square on the head. It is no reproach to farmers to lack mental culture, when they had no fair opportunity to attend school so as to acquire a good education. That fact,

however, is no good reason why they should not vote for giving all coming generations a better chance to improve the noble faculties of our common nature than they enjoyed. Without some material increase of knowledge, our future progress must be in desolating the land we cultivate, not in making it more fruitful. But hear Mr. COCKE:

"In our Southern States, the entire class of proprietors or cultivators of small landed property, the managers or overseers having in a great measure the more immediate supervision and control of the landed estates of wealthy proprietors, are universally and utterly ignorant of every abstract principle of physical or natural science.

"And it is reasonable to believe that the loss to Southern agriculture each year, in consequence of this lamentable state of ignorance, if such loss could be prevented, and could the amount so saved for a single year be appropriated and applied to educational purposes, that it would itself be sufficient richly to endow as many Agricultural Schools and Colleges as are required by our Southern States. When we contemplate the vast amount of ignorance, the total want of education existing amongst the mass of agricultural population of our State, we shall be at no loss to conjecture that the pecuniary loss to Virginia from this cause is immense indeed."

The writer of the above proposes to add three agricultural professorships to the University of the State; which would be a valuable addition to its educational force, although, in our humble judgment, to teach the profession of agriculture properly, it should be divided among not less than six professors, or the least number employed to teach the profession of medicine in Colleges. Some of the Agricultural Schools in Europe have thirteen professors; but six in this country would do the work, if duly qualified, in a worthy and effective manner. Public opinion is growing up to demand the advantages which schools devoted to the elevation of tillage and husbandry as an enlightened calling may readily afford, and place within the reach of all. Every friend of improvement in agriculture and in those with whom it is a profession, should speak out on the question. If the president of every agricultural society would take the high ground occupied by the President of the Virginia Society, he would be every where sustained by the Agricultural Press, and our country would soon be in advance of all other nations in both the science and the honors that legitimately appertain to this the greatest interest of mankind. It has something substantial to build upon; something most enduring to uphold the wisdom and virtue devoted to the supply of its manifold wants. Its friends should have *faith*, and work accordingly. We have often wished that we had an efficient Agricultural Society to do what we once hoped that the United States Agricultural Society would achieve. The writer labored more than a year to get that institution organized at the seat of the Federal Government. Our object was not shows of fat oxen or babies, but to reach hundreds of thousands and millions by cheap publications, and thus create that kind of popular sentiment which supports every well-considered effort to increase our agricultural knowledge. To make the human family think, and think to the consummation of a good purpose, they need not a little plain talking to in order to set their best thoughts in motion. We know from personal experience that there is a remarkable affinity between mental rust and *rusticity*. A little more rubbing and scrubbing of the intellect is needful on many a plantation to keep it bright. We find an



agricultural library valuable for its daily conversation, its cheap and pleasant instruction, and the interest it awakens in even the duller routine of the isolated farmer's life. As social companions, books conceived by the best minds the world has ever produced, are alike above all praise and all price. It would be an improvement of our home philosophy if it made us think a little more of the soul and less of the body, and not dwarf and peril the former while we push the latter recklessly into an untimely grave. L.

## Horticultural Department.

### STRAWBERRIES.—THEIR CULTURE.—BEST Varieties, &c.

EDITORS SOUTHERN CULTIVATOR—Wherever visitors from the North happen to sojourn for a little while in the Southern States, they are always admiring our beautiful climate—a climate like that of Spain and Italy, so often praised by poets. They cannot help thinking and saying, that this is one of the favored garden-spots of the earth; that this section ought to produce an abundance of the finest fruits and vegetables. Yes, certainly it *ought*! Why is it then, that fine fruits are so scarce with us? merely because most people think that it is *too much trouble, or can't be done*.

It is true, such luxuries of life are not raised as easily as weeds. But do we not often pay exorbitant prices for other luxuries not half so good, nor so wholesome, while the luxuries of a garden and orchard can so easily be had by a little home industry and perseverance?

Most persons are impatient of waiting; they must see the results of their labor *at once*, and procrastinate the planting of an orchard of fine Apples, Pears, &c., because they will not wait three or four years for the fruit.

This excuse, however, will not answer for their neglect in planting a *Strawberry patch*, which, when planted in the autumn, will come into bearing in 6 months, and *never fails* to yield a fair crop. Should it even happen, that the early flowers are destroyed by late frosts, the plants will bloom again, and yield a later crop.

In fact, there cannot be any excuse for not having a fine supply of this delicious and wholesome berry, which comes in so early as to open the fruit season.

In regard to the wholesome qualities of the Strawberry, I will here quote the words of Mr. Loudon, the highest authority in Horticulture; he says:

"It consists almost entirely of matter soluble in the stomach, and neither there nor when laid in heaps and left to rot, does it undergo the acetous fermentation.—Hence, it is very nourishing, and may be safely eaten by gouty and rheumatic persons."

Mr. Abercrombie, another high authority, says: "In addition to its flavor, the sub-laced juice has a cooling quality, particularly acceptable in summer. Eaten either alone, or with sugar and cream, there are few constitutions with which Strawberries, even when taken in large quantities, are found to disagree. Further, they have properties which render them, in most conditions of the animal frame, positively salutary, and physicians concur in placing them in their small catalogue of pleasant remedies. They dissolve the tartarous incrustations of the teeth. They promote perspiration. Persons afflicted with the gout have found relief from using them very largely; so have patients in cases of the stone; and Hoffman states that he has known consumptive people cured by them."

We of the South have many advantages over the North in raising this delicious fruit, and the directions for planting and cultivating the Strawberry heretofore given in the *Cultivator*, by yourselves and correspondents, are so clear and perfect that I shall not attempt to say anything in the way of improving them. For those persons, however, who are yet tyro's in the business, I would say, that the Strawberry prefers a light sandy soil. Hot stable manure should not be applied, as it will cause the plant to run too much into foliage and vine, without producing much fruit. Well decomposed leaf-mould and wood ashes are the best manures. A thorough subsoiling, two feet deep, will also have a very beneficial influence, as it will enable the plants to send their roots down where it is cool and moist, and thus withstand the effects of our scorching summer's sun.

If possible, the Strawberry patch should be located on a spot where full control of *water* can be had, for copious waterings during the bearing season will greatly increase the produce.

There are different theories as to the mode of planting a Strawberry patch, some persons preferring to plant them in beds, and others to have them in rows, 30 inches between the rows, and the plants 18 inches asunder in the row. Either way will do.

The plants should be kept clear of weeds by stirring the soil around them whenever needed. This is done best with a pronged-hoe, and the soil should always be drawn *up to* the plants, never from them. To put a negro to hoe a Strawberry patch, thrusting his weeding-hoe unmercifully into the ground around the plants, thus injuring the roots, and afterwards scraping the soil away from the plants, thus exposing the fine roots to the scorching sun is a barbarous way, and sure to kill *any* Strawberry plantation.

The Strawberry, in its wild state, has always a *perfect flower*. By hybridizing and high culture many of the new and fine varieties have become deficient in their blossoms. There are two classes, which the Strawberry cultivator must know, viz: 1st. Varieties which are bisexual or hermaphrodite, with perfect flowers; these are more or less productive; and 2d. Pistillate, or female blossoms, very productive. The first kind is in our catalogues marked with H, while the latter is denoted P. In arranging and setting out a Strawberry patch, at *least* every twentieth row should consist of a Hermaphrodite variety, thus securing an abundant crop, or if planted in beds of 4 feet wide, every third or fourth bed may be composed of hermaphrodite varieties—the balance of some well-tried Pistillate, like Hovey's Seedling, McAvoy's Superior, &c.

Having had a great many varieties on trial, I will here enumerate such as have proved to be the most desirable in this latitude:

*Crimson Cone (P.)*—Above medium size, oblong, deep crimson; seeds deeply imbedded; juicy, and with a sprightly and rather acid flavor. Very productive and of a luxuriant growth. Comes in pretty late.

*Early Orange (H)*—Medium size, roundish conical, and of a bright orange scarlet color; pleasant subacid flavor, and unquestionably one of the hardiest and best varieties for this latitude, where it will succeed with the slightest cultivation. Coming in *very early*, blooming and ripening in succession for a long time, it is an excellent market fruit, which bears carriage very well. It is a much better impregnator than the *Early Scarlet*, which I consider an inferior variety in every respect. [The *Early Orange* stands in the Fruitland Catalogue as "Orange Prolific"]

*Hovey's Seedling (P.)*—Very large and fine when properly cultivated. Its shape is broad-conical, of a bright crimson color, which turns rather dark when fully ripe.

The foliage is remarkably strong, leathery, and of a peculiar dark green, glossy hue. This is a splendid variety for family use, as well as for market. Very productive, when impregnated with a hermaphrodite variety.

*Jenny Lind (H)*—One of the earliest, rather large, conical, light scarlet, with a fine flavor. Very productive for its sex, and an excellent early market fruit, though more soft than the *Early Orange*. It is entirely superseding the *Early Scarlet* at the North.

*Iowa (H)*—A seedling from the West, quite early, large, broad, and of a peculiar light orange color. The flesh is quite firm and elastic, and on that account bears carriage well.

*Longworth's Prolific (H)*—Large, roundish, early; has the quality of ripening many berries at once, which makes it valuable as a market fruit, while its exquisite flavor renders it desirable for family use. All the blossoms expanding nearly at once, it is not to be recommended as an impregnator.

*Lucy Fitch (P)*—Originated in Michigan, and takes its name, I believe, after the lady in whose garden it first was noticed. Berry medium size, round, orange scarlet, well flavored, and produced in very large trusses or clusters. Its flower is a remarkably small and delicate Pistillate. It comes in by the middle of the season, is very productive, and remarkable for throwing out a great many runners at the same time that it is bearing a heavy crop of fruit.

*McAvoy's Superior (P)*—Very large, equal in size to *Hovey's Seedling*, roundish, glossy crimson, high flavored, and very productive. It is an excellent fruit for family use, and a near market, but being rather soft and tender, it will not bear carriage so well as several other varieties. In a strong soil, with plenty of impregnators, and when well supplied with water, it will, like *Hovey's Seedling*, throw up a succession of flowers, and yield fruit for a long time in succession.

*Peabody's Haulbois (H)*—This new Southern Seedling, originated by Chas. A. Peabody, Esq., was for the first time disseminated late this winter, and it would, therefore, not be fair, as yet, to judge of its quality. It is, however, so far, promising well. The berry is large and very highly flavored. Its foliage and growth are very luxuriant, and although it probably will not be so productive as the Pistillate varieties, it bids far to prove the best Southern variety yet introduced.

*Scott's Seedling (H)*—Oblong, much pointed, beautiful crimson, rich and melting; productive for its sex, a vigorous variety.

*Walker's Seedling (H)*—Medium size, conical, very dark crimson color when fully ripe. Its flavor is exceedingly rich.

*Victoria [Trollope's] (H)*—One of the very few English varieties that has proved any acquisition in the South. Berries often of a monstrous size, broad conical, obtuse pointed. Color light orange, seeds rather large. It is a magnificent fruit, and yields a fair crop.

We have also *Wilson's Albany*, *Boyd's Seedling*, *Genesee Seedling*, *Hooker's Seedling*, and many more new varieties in cultivation here, which, however, have not yet been tested sufficiently to recommend them to the public.

In the North, and still more so in the West, the cultivation of the Strawberry is carried on profitably, and to a great extent. Fifty bushels of Strawberries to the acre is a fair average crop about Cincinnati, and by high culture this yield may even be considerably increased.

ROBERT NELSON.

*Fruiland Nurseries, Augusta, Ga., June, 1857.*

**THE OLD PEAR TREE**—The *New York Daily Times*, of May 12, says, the the Stayvescent Pear tree, corner of Thirteenth-st and Third avenue, is white with blossoms. The Knickerbockers should make a pilgrimage to see the fine old relic in its glory.

## PEARS ON THE HAW STOCK.

EDITORS SOUTHERN CULTIVATOR—Attention having been much attracted of late to this delicious fruit, too long neglected at the South, I would suggest to those who wish to enjoy it without waiting too long, the use of the common red fruited Haw, so abundant in our woods and old fields as stock, to graft upon. From an experience of several years, I give it a decided preference over the Quince or the Pear stock, for the following reasons:

1st. It throws out no troublesome suckers or runners, which we all know to be a serious inconvenience to say the least.

2d. A Pear grafted on the Haw will bear the 3d or 4th year, and often the 2d year from the graft.

3d. The Haw will derive nourishment and thrive as we all know, on any of our poor sandy soils, where the Quince or Pear would starve and dwindle away, as they require rich soil to grow and produce as they should.

4th. The Haw grows from the seed, which is easily procured, if planted as soon as ripe, or any number of healthy young trees can be taken up from the woods, grafted and set out.

Lastly. It is a much stronger stock than the Quince. I have for several years enjoyed delicious Pears grown on the Haw, while the original imported parents on Quince have scarcely proved themselves, indeed some of them have not yet borne.

Some Pears will not do on Quince; whether this will also be the case on the Haw, experience alone can teach. So far, all that I have tried have done well.

I do not advise, of course, to reject either the Quince or the Pear; on the contrary, I make use of both, and only propose the Haw as a powerful auxiliary in rearing an orchard.

A very dwarfish species of Haw, not more than two or three feet high, will give true dwarf Pears, which will answer for a small garden, or probably for a large box or jar. In the same way will a Peach budded on the small double-flowering Almond, so common in every flower garden, never attain more than three or four feet in height and sometimes much less, forming a perfect little tree, and bearing large and beautiful fruit. I have tried it and succeeded perfectly.

A. C.

[Our correspondent is an experienced Fruit Grower, and his testimony should induce a further trial of the Haw as a stock for the Pear. We have, already, the Italian Dwarf Peach, which is very small, and worthy of a place as a curiosity. The doubling-flowering Almond can be made available as "A. C." suggests, when it is desirable to dwarf particular varieties.—Eds.]

## APPLE AND PEAR BLIGHT.

EDITORS SOUTHERN CULTIVATOR—As this will be a year long to be remembered as one causing great destruction by blight, and as many of your readers will, no doubt, like some explanation as to its cause and action, I am induced me to give what practical knowledge I have gained by close observation in the matter.

Blight is undoubtedly caused by an excess of potassa (or soda) liberated by extreme cold during our past severe winter, or by culture, or the corrosive action from disengaged gases from decomposing vegetation. It matters not which of the three causes affect this result, the effect is one and the same.

Plants, under a certain condition, absorb a greater quantity of alkaline solutions than is essential for their well doing—in other words, they carry into their circulatory system extraneous substances, and again a greater quantity of alkalies than their assimilations can absorb to

advantage in a given space of time, and this latter cause is the result of the subject under discussion.

I am aware that I am on virgin soil, and that my theory is subject to criticism, but I am willing to stand the ordeal, and from practical experiments instituted (not with this view) am determined to hazzard and stand by and defend my declaration.

Now, we shall enquire in what manner does this excess of potassa or soda interfere with nascent vegetation? We say that by its excess protein is formed. Now, protein is the decomposition by potassa or soda of vegetable albumen, and that, the disease once established, is true contagion and actually exists, and amputation beyond its utmost limits will not always remedy the disease, for the same cause is or may still linger in the roots to create under favorable influence the same condition.

I recognize but one form of blight, and that is termed by Downing, Thomas and others "Frozen Sap Blight or Fire Blight." All other forms I shall class under the head of diseases, unless it be that the *Scylotus pyri* have indeed the power of inoculation under peculiar circumstances, and which I very much doubt, although I do not consider it impracticable.

Plants absorb during the early spring (and this spring especially) certain ingredients, (and we are compelled to the conclusion that it is potassa) which render them equally liable to damage from mild frosts, which produces the same baneful effects as the heat produces to cause blight, and all entertain no doubt whatever, as to its identity of action, although their cause directly conflicts.

Columbus, Miss., May, 1857.

POMONA.

#### THE CURCULIO.

EDITORS SOUTHERN CULTIVATOR—A person in your June number makes some inquiries in relation to the Curculio and the season at which it deposits its eggs. I was under the impression that all their eggs were deposited in the plums in the spring, till I had conclusive evidence to the contrary. For 26 years the only plum trees that I rely on for a crop, are planted in brick pavements and have never had a plum in which an egg was deposited. In the open ground my plums have only escaped entire destruction two years. When I have trees in the open ground to test the quality of the fruit, I cover one or more plums with a piece of fine gauze, to keep off the Curculio. The first season I took the gauze off when the fruit had attained its full size and began to color, to give it more sun. I found every plum stung by the Curculio within two or three days, and I have since left the gauze on till the fruit was ripe.

N. LONGWORTH.

Cincinnati, O., May, 1857.

#### LAUREL OIL VS. FLIES.—SCUPPERNONG Wine, &c.

EDITORS SOUTHERN CULTIVATOR—*Gentlemen*—I have seen it stated several times, that "Laurel Oil" is an effectual antidote to flies. Can you tell me on what authority the statement is made? and what is your opinion in regard to it? If true, it is a matter of no small importance; for flies are certainly one of the most tormenting pests we have to endure, and anything which will banish them from our houses, kitchens, &c., will deserve to be ranked as a blessing. I have seen it stated repeatedly, that the meat market at Ghent was freed from this nuisance, by the application of Laurel Oil to the walls, &c. How would it do to coat the walls of houses (plaster walls) with it? Would it not discolor and grease them? If it is a dark oil (greenish yellow, according to the U. S. Dispensatory) it would stain a white wall. But could it not be bleached? The odor is said to be the *anti fly* principle

—would the bleaching process destroy that? Again, there are two oils obtained from the Laurel, a fixed and a volatile oil. Which one is meant? If the latter, perhaps it would not grease white plastered walls to any extent, nor stain if it was bleached. Would it? Essential or volatile oils seem to be much less greasy or unctuous, than the fixed oils, and I suppose they are indeed so. Please answer me in the next number of the *Cultivator*, if there is time for it, as I am anxious to test the matter.

In your April number there is an article on Grapes, Wine, &c., (page 160) signed "J. L. M." You do not agree with him in regard to the value of the Scuppernong grape. I do, however, though only acquainted with (and but partially so) one side of the question. I have never seen the Catawba growing, but have drank the wine (Longworth & Zimmerman's) both still and sparkling, and also their brandy. The last I regard as *very good*, but do not think so much of the wines. Wine is made from the Scuppernong, in this and the adjoining district of Williamsburg, by comparatively rude and unscientific processes, which I much prefer to any Catawba I ever drank. The usual mode of making is two, and sometimes three pounds sugar to the gallon of juice—put in barrels and let it ferment and settle; and then it is either allowed to stand, and used out of the barrel, or else poured off into jugs and bottles. Made in this way, it is rather a cordial or liquor than a wine, but still is a delightful beverage. It has the grapy taste in perfection, and if bottling is not put off too long, it retains gas enough to make it *smoke* when uncorked. If properly managed, I believe a *first rate* Champagne can be made from the Scuppernong. My faith is so strong in the *profit* to be derived from it, that having but a few acres, I have determined to devote half of it (4 acres) to this crop. But I don't know how to begin. The usual way is just to plant them, and let them run on a canopy, which must be extended every year, as they are never pruned. But I am not willing to cultivate this way, and have made a small beginning pretty much according to Mr. Axt's plan for the Catawba. But I fear it may not answer, and I know no one who can instruct me. "J. L. M." writes as if he understood the subject:—could you not get him to write an extended article on the proper mode of culture for the Scuppernong?—planting, pruning, training, &c.? I, for one, would be very much gratified, and I dare say, many of your readers would find both profit and pleasure in it.

S. M. R.

Marion District, S. C., May, 1857.

[We have never used Laurel Oil for the purpose indicated, and are not, therefore, qualified to give any opinion of its efficacy. It possesses a very peculiar odor, which may be offensive to flies, and we advise a trial of it. The Scuppernong must have plenty of space—say 20 to 40 feet for each vine, and some sort of rough canopy or open scaffolding (8 or 10 feet high) to run on. The main stem of the vine may be kept clear of side shoots or branches, from the ground to the canopy, and what other slight pruning is necessary, must be done in the autumn, immediately after the grapes are gathered. This treatment applies peculiarly to the Scuppernong, though we scarcely consider any pruning absolutely essential. The fruit is gathered by spreading sheets or large cloths beneath the vines where the grapes begin to ripen and shaking the latter with a forked stick. This process must be repeated from time to time, as the grapes advance. Sugar and alcohol, artificially added, always impair the value of wine, and grape juice of the best quality never

needs such addition. We shall be much pleased to hear from our friend, "J. L. M." and others.—Eps.]

#### FUSTIC---"VIRGILIA LUTEA."

EDITORS SOUTHERN CULTIVATOR: In your list of ornamental trees and shrubs, you have set down the Yellowwood, or Fustic (*virgilia lutea*), as belonging to the latter class, and growing about ten feet high. That tree grows more luxuriantly in the vicinity of this city than any where else in the United States, and, indeed, Michaux states that it is very seldom seen in other localities. It is a tree often from twenty to thirty or forty feet high, of a light green foliage, smooth bark, and has a long pendent white flower, blooming generally about 10th of May, and giving to our forests a beautiful appearance. The wood is close-grained, and would make nice furniture—the roots have been used to make snuff boxes and other little wooden toys. The bark dyes an indifferent yellow. This tree, though growing without much symmetry, is a beautiful ornament to a yard or park, and they are so easily raised from the seed, that it is singular their cultivation has not been generally introduced. The tree was growing, a few years ago, in Paris, from seed taken from this locality by Mr. Michaux, and, I have been informed, it does well in the latitude of Philadelphia and New York. You can, if you desire, procure any quantity of seed in the autumn. Very respectfully,

Nashville, Tenn., May, 1857.

J. M. L.

#### NEW NATIVE PLANTS.

EDITORS SOUTHERN CULTIVATOR—It is not generally known to Botanists that there exist in our woods two species of wild yellow Jessamin (*Gelsemium Nitidum* or *Sempervirens*.) I have mentioned this fact to several persons proficient in the science, who had never heard of it previously, and I have in no instance seen it in Botanical works. The Jessamin of the lower part of the country is a stronger vine, with large flowers, five cleft, with divisions very round: stamens longer than the tube, and pistils half the length of the stamens. The Jessamine most common in the up country is a less vigorous plant; flowers small, five cleft, but more deeply in the other; divisions spatulate and reflexed. Stamens very short, and pistil longer than the tube. This vine bears seeds in great abundance. It will be perceived that the difference between the two species is in the general size of the plant; the size and shape of the flower, and the stamens of the one being much longer than the pistil, while in the other this is reversed. In other respects, such as color, perfume, etc., they are similar. This difference is not and cannot be caused by different locality or soil, for I have found a few of the latter in the lower country, and also some of the larger in the upper country in close proximity to the small variety. I therefore think I have sufficient reasons to conclude that they are two distinct species.

There is another very great favorite at the South, for which I lay similar claims: the sweet scented shrub (*Calycanthus floridus*). I have in my garden a magnificent species of it, found in the woods, the parent of which is still to be seen on the spot where this was taken from: the shrub is larger, with leaves obovate (egg shaped, but with the narrowest end towards the stem,) and more than double the size of those of the common shrub, which are oblong. Flowers very long, very double, with the petals near the centre broader and of a redder brown than the common. I have a few at my side, measuring three-and-a-half inches in diameter (not circumference). Perfume exceedingly rich, approaching more to that of the Banana than of the Strawberry. The tree, over 8 feet high, is literally covered with these beautiful flowers, and the whole neighborhood is perfumed with the smell. It is one of

the first to put out flowers, and it remains in bloom for at least two months, and often longer. I have seen this species or variety only in one spot, a seedling probably of some neighboring wild shrub of the common, or *C. floridus*, and I have never met with any person who had seen it any where else. This beautiful plant would be an ornament to any flower garden; and if it be new and undescribed, as I believe it to be, I must request the privilege of naming it *Calycanthus Ravenelii*, in honor of the much esteemed and talented Botanist, H. W. Ravenel, of So. Ca. A. C.

Woodward, S. C., May, 1857.

#### STANFORD'S WILD OAT GRASS.

EDITORS SOUTHERN CULTIVATOR—I have received several orders for seed of the above grass, and shall be able to fill them, and also a few others about the middle of June, and at considerable reduced price. [See advertisement in this paper.]

The above is decidedly the best and most profitable grass, either for hay or for pasturage that has ever been cultivated at the South; and I might say anywhere else. It is a winter green, with pasturage four to six inches high all winter, and is not injured by frost or snow—it grows luxuriantly, either upon high or low ground, (I have not yet tried it upon wet or swampy lands), it bears the shade well for half the day I know, and would perhaps bear more than that; and may be cut for five years without removing, and requires no labor after the first sowing; grows in tufts whether sown in drill or broadcast. Last year I cut a space of seven feet square of average growth (upon high ground, and not manured) when in bloom, dried it for hay, it produced nine and a half pounds of well dried, excellent hay, equal to timothy. This is at the rate of over 8000 pounds to the acre, which estimating it at the present price of dried corn blades would be worth \$80 per acre for feeding stock; but make the estimate at half the quantity or half the price, it would then produce over forty dollars per acre, with no labor but to cut dry and house or stack it. Can the Southern planter, with cotton, rice, corn or tobacco or any other crop, realize as much per acre even with four times the labor? The truth is, the Southern planter is too apt to look to the probable result in dollars and cents per acre, for the crops he plants, without counting the real difference in labor that must be devoted to each; a close examination of this matter would enable him to make his farm more profitable and keep it in better condition.

I have heretofore sold and also distributed seed gratis to many persons in the Southern and Middle States, and from several have had responses, admitting that the grass is superior to any they ever met with. I would be pleased to hear from every one the result of his trial of it, either directly or through the *Southern Cultivator*.

JOHN R. STANFORD.

Pomona Hall, near Clarksville, Ga., May, 1856.

OTHER FOLKS' EYES.—We spend our income for paint and paper, for a hundred trifles, I know not what, and not for the things of man. Our expenses are almost all for conformity. It is for cake we run in debt: 'tis not the intellect nor the heart, nor beauty, nor worship that costs so much. We dare not trust our wit for making our houses pleasant to our friends, and so we buy ice creams. He is accustomed to carpets, we have not sufficient character to put floor clothes out of his mind, so we pile the floor with carpets. Let the house rather be the temple of the fairies of Lacedæmon, formidable to all, which none but a Spartan may enter, or so much as behold.—EMMERSON.

## BLIND STAGGERS IN HORSES.

EDITORS SOUTHERN CULTIVATOR—I have noticed in several of the back numbers of your valuable paper inquiries for the best mode of treating Blind Stagers.

I have a mode that has *always* proved successful in my hands; but being unused to writing for the public eye, and the remedy a remarkably simple one, I have been deterred from giving it lest I might expose myself and it to the criticisms of your numerous readers. However, hoping some one may be disposed to try it, in the hour of extremity, and thus save a valuable horse, I lay aside all fear of consequences and give it for what it is worth, only requesting a fair trial. It is simply the *timely* application of cold water to the occiput or back part of the head and spine. If the animal can walk he should be placed in the shade and a stream of cold water, say half an inch or less in diameter, if the temperature be low, let fall from a height of two feet on the back part of the head. Two or three gallons is sufficient for an application, but should be repeated as often as the symptoms recur. If the application has not been made within a few hours of the attack, the stream of water should be about half the above named size, but continued much longer, or until there is a marked improvement. The animal must be closely watched, and the indications promptly met, bearing in mind that any remedy is such only when properly applied. At the same time apply wet cloths of several thicknesses to the spine to be re-wet as often as they become warm. Give injections of warm water, mixed with soap suds and common table salt; take no blood; and if the above plan is judiciously followed, will I insure nine out of every ten horses, provided they were sound at the period of attack. It will certainly do no harm. Try it.

A. P. HARDEE.

*Wheeling, Winn Parish, La., May, 1857.*

## AGRICULTURE OF THE UNITED STATES.

THERE can be no subject more interesting either to people or philosophers. The whole subsistence of mankind depends upon it; and not only that, but all the relations of business, of commerce, of industry and human happiness arise solely from the development of agriculture.

The agricultural statistics taken in 1850 contain many interesting developments. That year was not, however, of itself, enough to determine all the problems relating to American farming—for in any one year there are some crops which partially fail. There are some things, such as the size and value of farms, and the proportion of improved lands, which are determined with considerable accuracy, although, of course, their proportions vary with the growth of the country. The following table will show the relation between the number of farms and the number of people in the principal States of each section:

States.	Farms.	Population.	Ratio.
Maine.....	46,670	283,169	1 to 13
Massachusetts.....	34,069	994,514	1 to 30
New York.....	170,621	3,097,394	1 to 18
Pennsylvania.....	127,576	2,311,786	1 to 19
Virginia.....	76,013	1,421,661	1 to 19
North Carolina.....	57,963	866,039	1 to 15
Tennessee.....	72,735	1,002,017	1 to 15
Louisiana.....	13,422	517,762	1 to 40
Ohio.....	143,808	1,980,329	1 to 14
Indiana.....	93,896	988,416	1 to 11
Illinois.....	76,208	851,470	1 to 11

Here we see the *largest number* of farms in proportion to the inhabitants, is in the Northwest, and the smallest number in Massachusetts and Louisiana. The reasons for this are quite obvious. As a general principle, the number of farms will be less where there is most of the

*civic*, or city and manufacturing population. On the other hand, there will be the largest number of farms in those States where the population is chiefly farming or planting; but there is a modification to this in the laws and customs subdividing estates. Thus we see Louisiana has the smallest number of farms, although it is a planting State. The reason is, that in Louisiana the culture of sugar and cotton requires large plantations. In Ohio—although one of the most purely agricultural States—there is but little more than *one farm to three voters*, so that, in fact, after allowing for the inhabitants of the towns not more than *one-half the voters are freeholders*.

Let us consider now the number of acres to a farm, and the amount of improved land. Let us take one State from each of the great sections as an example:

States.	Farm Lands.	Average.
Massachusetts.....	3,356,009 acres.	99 acres.
New York.....	19,109,084 acres.	113 acres.
Virginia.....	26,152,311 acres.	340 acres.
Tennessee.....	18,984,022 acres.	261 acres.
Ohio.....	17,997,493 acres.	125 acres.

Here we see that Virginia, with, relatively to Ohio a small number of farms, has them of large *size*, and so Ohio, with a greater number of farms, has them of smaller size; but this rule does not hold in Massachusetts, where there is not only a smaller number of farms, but a smaller average size. The reason is obvious—Massachusetts has a *small surface*, and an immense town population.

The *improved* land in the above five States, with the proportion to the population, is as follows:

	Improved Lands.	Proper. Acres
	Acres.	to 1 person.
Massachusetts.....	2,133,436	2
New York.....	12,408,964	4
Ohio.....	9,851,493	5
Tennessee.....	5,175,173	5
Virginia.....	10,360,165	7

If these States all produced the same *average per acre*, it is plain that Virginia would raise the largest surplus—Ohio and Tennessee next. But this is far from being the fact; and, in order to show which are the largest *producing* States, we will give the following table of *average productions per acre*:

	Wheat.	Corn.	Oats.	Potatoes.
New York, bushels.....	12	27	25	100
Ohio, bushels.....	12	36	21	75
Tennessee bushels.....	7	21	19	120
Virginia bushels.....	7	18	13	75

It will be seen that Ohio is, in this table, far superior to Virginia, and above Tennessee. When this is combined with the results in the other table, we see at once what the statistics of production also inform us, that Ohio is far ahead in the production of surplus food for export.

We may close this view of agriculture with the relative value of farms. Take, for example, the following States:

	Average	Average	Value
	acre per farm	value.	per acre.
New York.....	113	\$3,250	\$30 00
Pennsylvania.....	117	3,197	28 00
Virginia.....	340	7,021	21 00
North Carolina.....	369	1,192	3 25
Tennessee.....	261	1,345	5 00
Ohio.....	125	2,495	20 00
Indiana.....	136	1,453	11 00

This is a very instructive table. We may draw from it, in connection with other well known facts, the following practical instances:

*First*, That *nearness* to city markets, with every means of communication, greatly enhances the value of farms, as by comparing New York, Pennsylvania and Ohio with the other States above.



*Secondly*, That the *subdivision* of lands adds to their value.

*Thirdly*, That high cultivation, which subdivision and large population gives as in Pennsylvania, adds to the value.

The various circumstances of the several States enable us to see these things very well illustrated in the United States. The true principle of agricultural prosperity can here be well understood; and it will be well for the people of the United States, if they shall understand that solid prosperity of any nation depends physically on the success of its agriculture—*Railroad Record*.

#### GAME vs. SHANGHAI FOWLS.

EDITORS SOUTHERN CULTIVATOR—I notice an article in the May number of your incomparable *Cultivator* from the pen of "Mrs. M. K. J." of my former residence, Tusculum, Alabama, on the subject of "Shang-high" chickens. My wife has been raising such fowls for several years, and always consults me when anything happens to them. Several of hers are troubled with diseased feet at the present time, and I am satisfied there are two causes for it, viz: cold weather, their legs being so long that they cannot cover their feet with their bodies; and Besides, their bodies are very heavy and they have not wings sufficient to support themselves, in flying down from the roost. If you have noticed their carriage, they would walk exactly like a boy does when he has a stone-bruise on his foot.

As to the treatment, they are such trifling fowls that I dislike to recommend any. The preventive treatment is all that can be adopted. Have houses for them in cold weather; and do not fix up any arrangement for them to get high off the ground on account of the inconvenience they suffer when they fly down from the roost. I have seen them disabled from walking several minutes on this account. But for the benefit of Mrs. M. K. J., and all others who are unfortunately in possession of such bipeds (Shanghai chickens), let me recommend the very sensible plan my wife is pursuing with them. She is feeding them to the negroes, and has sent to the neighborhood of Mrs. M. K. J., for several pairs of Game Chickens to raise in their stead. I have never yet seen the advantage of Shanghai chickens over the Game; in fact they are inferior in every respect.

I have planted half an acre of the seed of what is called here the "China Humberg," and if I can procure a mill I will send in my experience after a while, if you think me competent to make a report of it.

I hope you may live as long as I do, so that I can always have the pleasure of reading the *Southern Cultivator*.

Respectfully,

A. T. G.

*Taylor's Creek, Ark., May, 1857.*

#### IMPROVEMENT OF LAND.

EDITORS SOUTHERN CULTIVATOR—There is a problem in my mind which I would like to have solved, and as editors are expected to know everything, to whom could I go with more confidence than to them? But to the problem.

Which has a farmer the most time to do, to wear out his land or to improve it? This problem was suggested to my mind from reading an extract of a speech, delivered before the "Farmer's Club," of New York. The speaker said that no free man could afford to cultivate his land in such a manner as to cause it to deteriorate in value, nor could he afford to grow 20 bushels of corn per acre, when by proper management he could make 40. And again the speaker remarked, no man can afford to keep up the fencing on 100 acres of land when he could keep better fences on 50 acres and make more off of the 50 than 100. Now all this is emphatically true to the letter, and yet not

one-half of us believe it. I say we don't believe it, because our actions prove the reverse. A faith that don't prompt to action is no faith at all. If I had faith to believe that there was thirty thousand dollars for me in Jackson, Miss., I would go for it, as a matter course. And if I believed that I could make more corn and cotton off of 60 acres with 4 hands by putting the work of the half of 120 on the 60 would I not do it instead of cultivating or huthering 120 acres.

Properly speaking no man has time to wear out his land. To wear it out he must do more work to make less than if he improved his land. Reflect a moment; do you believe it. It is more trouble and expense to wear out two plantations than to improve one—all the same size. This fact can be proven, and then but few would believe it. They think there is some humbug about this plant less to make more money. Everything here is looked on with suspicion. If I should start out to-morrow with my hat full of 20 dollar gold prices, I could not, to save me from death, give them away. They would think that there was some trick in it—the money was counterfeit, and I wished to get some advantage of them, some bewitchery or something else. At any rate, I would return with my hat full of gold.

What is Agricultural improvement? Is it to be found in the theory of planting 25 acres to the hand and making a "big crop" for 4 or 5 years, and wearing out your land and being compelled to clear the balance of your woodland that you had left for timber or move to another country? If this is what Agricultural papers, society fairs, writers and speakers call Agricultural Improvement, away with all of it! The country will be ruined soon enough by politicians and abolitionists without your aid. Good night.

Yours, &c.,

G. D. HARMON.

*Utica, Miss., April, 1857.*

#### TO WHAT FREE LABOR LEADS.

In a paper read before an Institute in the city of New York, not long since, says the New Orleans *Della*, by D. D. Deming, on the "Power of Cotton," the following statement occurs:

Twenty-five years ago, Patrick's dollar would buy twice the amount of necessities that it can now. What is the cause of this? The price of food has gone up, and the value of white men has gone down.

In 1831 the ratio of paupers in this State was 1 to 128.

In 1841 the ratio of paupers in this State was 1 to 29.

In 1851 the ratio of paupers in this State was 1 to 24.

In 1856 the ratio of paupers in this State was 1 to 17.

In twenty five years the laboring class of New York has paid for the luxury of "Freedom" double price for food, and an increased pauperism of over one hundred per cent. During all this time, the anti-slavery philosophers of that State have not ceased to jubilate over the more abundant wealth and prosperity of the Northern States, compared with the relative development of the South. Very well; but they fail to show that the laboring class of the South was put on a half allowance of food, and that, as a brilliant culmination of our prosperity, one in seventeen of them was thrown upon public charity as a pauper. They failed to show that the labor of the South could ever suffer destitution, while the capital which owned and employed it could command subsistence. Lastly, they failed to show that Free Labor may not starve while capital is swimming in boundless plenty and luxury, and that the co-existence of the greatest aggregate prosperity and the extreme destitution among the laboring class is an impossible condition in a free State.

Different results flow necessarily from different principles. The principle of "Freedom"—such as we find it in England and the North—has a necessary tendency to

monopoly on the one hand, and to destitution on the other; whereas, the principle of slavery, as it operates in the South, leads essentially to security of life and subsistence, and to an equable diffusion of comforts amongst the laboring class. The slaveholder owns his labor, and, therefore, must, to promote his own interest, feed and clothe it, and improve its skill and efficiency by securing the highest individual development of the laborer. But the non-slaveholding capitalist does not own his own labor though it is to his interest to absorb all of its profits. The more abundant labor is, and the more productive it is, the less of its fruits is enjoyed by the laborer; and if he should happen to form a part of a surplusage of labor, then he is an industrial cypher on the negative side of the unit; he counts less than nothing, and consequently must receive nothing—that is, he must starve! He is a dead weight; let him be lopped off, it will not pay capital any longer to keep the life in him. He has enjoyed "Freedom," voted for it, perhaps; perchance fought for it; pursued it with a single devotion—idolized it; now let him be a martyr for it!

In Ireland, a few years ago, over half a million of victims performed the duty of martyrdom for "Freedom," by perishing on the public highways. In England the votaries performed the office less obtrusively, but the sacrifice in the aggregate was probably as large. In New York city, we are told that thirty thousand unfortunate sewing-women pendulate between starvation and shame. And yet we can hear no end to the story of the diabolical villainies of slavery, and the tender mercies and divine beauties of "Freedom."

Such are some of the inevitable results of the industrial chaos, called "Freedom," to establish the supremacy of which fanatics and pretended philanthropists would destroy the safe, orderly and beneficent labor system of the South. It is a poor recommendation of a physician's prescription, that it has already poisoned his own family.

**FUNNY RAT TRAP.**—A correspondent of the *Genessee Farmer* relates the following funny way of catching rats:

I build my corn-crib on posts about eighteen inches high, made rat-proof by putting a broad board or sheet iron on the top of the posts. Make everything secure against rats except the granary, and have this rat proof except at one of the back corners. Here, where they will like it best, make a nice hole with a spout five inches long on the outside, where they can go in and out and eat at pleasure. Then, if I think the rats are too numerous, I take a bag, after dark, and slip the mouth over the spout on the outside of the granary. Then send "Ben" in at the door with a light, and the rats and mice will all run into the bag. Then slip the bag off the spout and slap it once or twice against the side of the granary. Turn out the dead, and in an hour or two repeat the process. After all are killed, stop up the hole till new recruits arrive, which treat in the same way."

#### IRON HOOPS FOR BALING COTTON.

EDITORS SOUTHERN CULTIVATOR: Can you, or any of your subscribers, inform me through the *Cultivator*, why hoop iron cannot be substituted in the place of rope for putting up Cotton bales? Hoop iron is cheaper than rope, and is not so liable to break. And will make a much neater package.

If rust on iron is the only objection, that could be easily obviated by painting the hoop iron previous to packing.

Yours, &c.,

A SUBSCRIBER.

Merriwither County, May, 1857.

**FRUIT FOR HEALTH.**—The *Ohio Farmer* makes the following very thoughtful and seasonable remarks:

Filth, moisture and exposure to heated atmosphere, are the causes of bilious diseases. The best counteracting agent is a free use of ripe, acid fruit. Experiment has verified the theory, that natural acids separate the bile from the blood with great certainty and mildness. Fresh, ripe, perfect, raw acid fruits are a reliable remedy. How strongly the appetite, in fevers, often yearns for a pickle, when nothing else can be relished, or eaten! It is the instinct of nature pointing to the remedy. The want of a natural appetite is often the result of the bile not being separated from the blood; and if the cause is not removed fever is the result. Fruits are cooling, because the acid stimulates the liver to greater activity in separating the bile from the blood, by which the bowels become free, the pores open, and health restored. The fruit should be ripe, fresh, and perfect—used without sugar or cream—in its natural state.

**WARM WEATHER DROPS.**—In a late medical journal allusion is made to a prescription, of which Dr. HORACE GREEN says: we are accustomed, while travelling in summer, always to take a small phial of it with us; as this medicine is quite sure to arrest, in children or adults, the intestinal irritation which in the warm season is so liable to follow a change of diet and the drinking of a different and perhaps a *harder* kind of water than that to which we had been accustomed:

Tincture of camphor, an ounce and a half; tincture of capsicum, half an ounce; compound spirits of lavender, one ounce, and kudanum one ounce. Mix, and take from 20 to 40 drops at a dose, (for an adult) according to circumstances, several times a day if necessary.

**SUBSTITUTE FOR BEAN POLES.**—How many gardens have their appearance spoiled by unsightly bean poles, as the old saying is "standing seven ways for Sunday." I have a way that looks better, and as for productiveness, there is half difference in favor of my plan.

Set posts twenty feet apart, six feet high, and fasten No. 8 or 10 wire on the top. Plant under the wire in hills two feet apart, leaving two plants in a hill to grow. Stick with willow or any kind of sprouts, peeling the ends to prevent growing. Tie them to the wire and cut off the tops of the vines two or three inches above the wires. The rows should run north and south, and be four and a half feet apart.

C. H. R.,

[in Moore's Rural New Yorker.

Stormville, Dutchess Co., N. Y.

#### COTTON CULTURE IN ARKANSAS.

EDITORS SOUTHERN CULTIVATOR—As you request of some of your subscribers to give you their mode of Cotton Culture, I submit this as the mode pursued here.

Bed up land as early as possible, open the row narrow, straight and shallow; cover with a concave block sufficiently heavy to press the earth on the seed. As soon as the cotton is up, run around with side harrows about four inches from the drill; after going over in this way turn back and run around the cotton again, going as close as possible, say two inches; this will leave a very narrow drill; follow with hoes, chopping out to desired width; when brought to a stand, put dirt with a sweep or broad shovel; continue the shovels during the whole season; no turning plow is used at all in the cultivation of the crop. I have not described the tools used, taking for granted that they will be understood. The harrow in the first cultivation is superior to the scraper, from the fact

that it leaves the ground in better order. In rows that are four and a half or five feet wide, two mules can be worked to one broad shovel, cutting forty-two inches wide, which is a great saving of labor.

JAS. H. MOON.

Arkansas, May, 1857.

[See the article of "Dixit," in present number.—Eds.]

#### A CHEAP SUGAR MILL

EDITORS SOUTHERN CULTIVATOR—In the June number of the *Cultivator*, I see a question by a planter, relating to a wooden mill for crushing Sugar Cane. If intended for a small scale and wishing to avoid expense, I believe I can describe to you a certain machine which every farmer, possessing some mechanical art, can manufacture. The only thing to purchase would be three cam wheels and three bolts.

Suppose three wooden cylinders either round or octagon set in a frame and to which motion should be given by connecting the three cam wheels on the top of that frame and attaching a sweep to the projection of the bolt of the middle cylinder. At the bottom of the cylinders there should be a platform covered with tin to receive the juice which could be conducted to any point to suit the operator. The cylinders should be about 1 foot in diameter and I believe they would revolve fast enough with one horse to suffice to crush the cane of several acres.

I have planted some cane and I am going to build a wooden mill of the above description. I believe that it will not cost me over ten dollars.

If you think that such an implement would meet the demand of several people, who only want to experiment before going into it extensively, I shall be very happy to have added this hint to some advantage.

Yours respectfully,

P. J. B.

May, 1856.

#### WHEAT GROWING NEAR THE TEXAS COAST.

THAT wheat can be successfully raised as well in the coast counties of Texas, as in the more elevated regions, has been, within the last few years, satisfactorily demonstrated. Judge Ross, of this county, has raised three successive crops of wheat, two of which—those of last year and the year before—yielded well; and the third is now on the ground, nearly ripe, and equal to any of the others. Good judges of this crop think it will yield about thirty bushels to the acre. Judge Murphree, of DeWitt county, as we are informed, has been equally successful in raising this desirable grain. Mr. Williams, also, who resides on this town tract, on the west side of the river, has three acres of wheat, looking remarkably well, nearly ready to harvest. It is well headed, well filled, and will produce 25 or 30 bushels to the acre.

Wheat raised in the wheat-growing districts of the North and West, is considered of very good quality when it weighs 60 pounds to the bushel, and yet the wheat raised in this vicinity weighs 70 pounds [?]

The black, stiff, hog-wallow prairie land seems better adapted to wheat than any other. In such a soil it grows thrifily, heads and fills well, never rusts nor blights, and is a sure crop. Thus it would appear that the hog-wallow prairies contiguous to the coast, that have been considered as nearly worthless, are likely to prove the most valuable lands in the State. The soil is deep, rich and enduring, and is well adapted to the growth of all kinds of hedging plants or trees. The cutting ants, that are so troublesome upon sandy lands, are never found in this kind of soil.

Texas flour will always command a good price, not only because it will be a superior article, but because it will come into market long before Western or Northern flour;

and when that indispensable article will be most likely to be scarce.—*Texas Advocate*.

#### THOUGHTS ON A "CHUNK."

EDITORS SOUTHERN CULTIVATOR—In opposition to an inward whispering, "thou art too young to teach," I have resolved to trouble you with a few thoughts suggested upon the observation of a chunk in cultivated land. The first idea that entered my mind was the necessity of close observation; for instance thought I, this chunk has been or will be a serious "backset" to my interest as a farmer; in the first place, there is an unbroken space around it, which produces nothing but a bunch of noxious grass, which seeds an acre of land, which preceding a wet season thoroughly sets a plantation, which followed by a bad crop year, induces or compels the young farmer to sell the old homestead and to seek a home in the wilderness, with the companionship of wolves and bears; but again to my chunk. The faithful plow-mule stands ten chances to one of getting a painful rap for disturbing the equilibrium of the negro's mind by shearing around it. But I shall immediately close for fear of being called by some a dealer in small facts; but of such I would ask what circumstance could be more insignificant than the falling of an apple from the tree, yet what has proved more significant.

With pleasure, I subscribe myself your friend and constant reader,

THE YOUNG FARMER.

Near Okolona, Miss., April 14, 1857.

HOGS.—Give swine occasionally a tablespoonful of a mixture composed of three pounds of ashes and one of salt, for each individual, mixed with his food. This is an effectual remedy for the kidney worm. When these animals are affected with costiveness take copperas, pulverized, put it in a common hand-skillet and hold it over a quick fire; it will soon boil. Stir it till well mixed and remove it from the fire to cool. Pulverize it and give to each hog a tablespoonful as often as the excrement voided indicates costiveness. It may be mixed with milk, mush or any kind of food.

#### BLACK AND WHITE HOGS.

EDITORS SOUTHERN CULTIVATOR: Two of my neighbors (gentlemen of undoubted veracity) recently informed me that a number of their hogs, some black and some white, were turned upon green wheat; the white hogs all died, and the black ones were not injured! Is this rule universally true? If so, what is the philosophy of it? Will some of your correspondents explain the mystery, if the rule is universally true? ENQUIRER.

McDonough, Ga., May, 1857.

DR. EDDY'S PATENT SELF-FEEDING STALL FOR HORSES.—The above named patent was issued on the 6th ult. to H. Eddy, of North Bridgewater, Mass. The inventor proposes to accomplish, and so far as we can see, does accomplish, the following objects: 1st, a horse can be fed without soiling his head or fetetop by hay seed or other matter; he cannot breath upon his hay, or spoil it by constant mouthing, and thus render it unpalatable. He can receive it no faster than he takes it and eats it. The stall is abundantly ventilated, and the horse cannot waste a particle of his food.—*Caladonian*.

**"EXCELSIOR" CORN AND COB CRUSHER.**

EDITORS SOUTHERN CULTIVATOR—I have just had ocular demonstration of the fact that the "Excelsior," introduced into this country by Mr. Leavett, is the very best Corn and Cob Crusher that I have ever seen any where. On his recent visit to this country, Mr. L. brought with him his silver plates, which the Excelsior took at various Agricultural Fairs, over the "Little Giant." Planters in this county who had the Little Giant, have laid it aside to rest, and bought the "Excelsior." The one I have (No. 1) grinds a  $\frac{1}{2}$  bushel of meal about as fine as "little hominy," or what we used to call, in Georgia, "grits," at seven revolutions. I grind with ease, with one mule, 12 to 15 bushels per hour. Ears of corn can be ground so fine as for one-fourth of it to be fine meal.

Now, for the benefit of the readers of the *Cultivator*, I would say that if they want a Crusher in which there is no humbug—one that must give satisfaction wherever it is introduced—try the "Excelsior," and my word for it, they will say that they never saw anything in the way of a Crusher to equal it. Manufactured by Elmers & Forkner, Cincinnati, Ohio. Price only \$25.

Yours, &amp;c.,

G. D. HARMON.

*Ulrica, Miss., May, 1857.***BAROMETER FOR FARMERS.**

EDITORS SOUTHERN CULTIVATORS—I notice in the June number an article on Barometers for Farmers, and send you the following formula for making a simple Barometer:

Put two drachms of pure Nitre and half a drachm of Chloride of Ammonia reduced to powders, into two ounces of pure Alcohol, and place this mixture in a glass tube of about ten inches long and proportionate diameter, the upper extremity of which must be covered with a piece of skin or bladder pierced with small holes. If the weather is to be fine the solid matters remain at the bottom of the tube and the alcohol is transparent as usual. If rain is to fall in a short time some of the solid particles rise and fall in the alcohol, which becomes somewhat thick and troubled.

When a storm, tempest or even a squall is about to come on, all the solid matters rise from the bottom of the tube and form a crust on the surface of the alcohol, which appears in a state of fermentation. The appearances take place twenty-four hours before the tempest ensues; and the point of the horizon from which it is to blow, is indicated by the particles gathering most on the side of the tube opposite to that part whence the wind or storm is to come.

Yours truly,

M.

*Dahlongea, Ga., July, 1857.*

**RAT PROOF CORN CRIB**—"In framing let the sleepers into the side sills so that the top of the sleepers and sills will be level; joint your flooring, drive up tight, and nail down fast, and you have a floor that will neither lose your scattered corn, nor let in the rats and mice.

Neither stone nor brick for *under-pinning*, for the rats will certainly undermine them, and your sills settle; but use good blocks, two feet long, brought to a square at the top the size of sill. Use these precautions, and I will guarantee you a complete riddance from the rat tribe, if you do not let them in at the door."

**RICE MILK.**—Wash a pint of rice in two waters. Add half a pound of good raisins, carefully picked and cleansed, and boil well; pour off the water, and mix one quart of milk with the rice by stirring. Put it again on the fire, and allow it to boil again for five minutes, and mix with it four tablespoonfuls of brown sugar, and two eggs beaten light, stirring well, and after the ingredients are thoroughly mixed, boil for five minutes longer, and the dish is ready to serve.

**Advertisements.****NEW CROP TURNIP SEED.**

JUST received from the importers a full supply of the Large White Flat, Large Globe, Norfolk, Hanover, Ruta Baga, and the Yellow Aberdeen TURNIP SEED, for sale wholesale and retail. W. H. HAINES, Augusta.

Orders from the country attended to with dispatch.  
July 57—tf

**EVERY MAN HIS OWN ARCHITECT.**

THE way to build a country house is to get RICH'S AMERICAN ARCHITECT. Price \$6. Published by C. M. SEXTON & CO., 140 Fulton-st., New York.

RURAL ARCHITECTURE by L. F. Allen. Embracing Old Buildings as well as Cottages and Farm House. Price \$1 50. At SEXTON'S, 140 Fulton st.

LAY OUT YOUR GROUNDS by DOWNING'S LANDSCAPE GARDENING. Price \$3 50. Published by C. M. SEXTON & CO., 140 Fulton-st., N. Y.

POULTRY—Look out for your Chickens; and the best way to do that is told plainly in the AMERICAN POULTRY YARD. Price \$1. Published by SEXTON & Co., 140 Fulton-st., N. Y.

Put up good Green-Houses this summer, and get ready for winter. LEUCAR'S HOW TO BUILD gives full directions. Price \$1 25. To be found at SEXTON & CO'S, 140 Fulton-st., New York.

Sent free of Postage on receipt of price. July 57—1t

**IMPORTANT TO PLANTERS.**

THE RICHMOND FACTORY (Richmond county, Ga.) continues to MANUFACTURE WOOLEN CLOTH, at 12 $\frac{1}{2}$  cents per yard—finishing every material except the Wool. The extensive and constantly increasing patronage the Factory has enjoyed for years past, assure the proprietors that the article of Winter Clothing for Negroes made by them, has not been surpassed by any cloth made North or South.

Recent extensive improvements and additions not only enable us to keep up the standard of the Goods, but to secure an early delivery of the same.

Planters or others, who may desire to avail themselves of this opportunity and secure a first rate article at a moderate cost have only to send us the Wool washed clean in cold water (if sent dirty one-half a cent per yard extra will be charged for washing.) Burry Wool is not objectionable—the Burrs are removed by machinery.

The name of the owner should be marked on all packages sent us. Wool sent by any of the Railroads in Georgia, Alabama or South Carolina, to the Augusta Depot, marked Richmond Factory, (and owner's name also,) will be regularly and promptly received, and the cloth when made, returned to the points directed. Each parcel is made up in the turn received, hence an early delivery is always desirable. All instructions to

June 57—6t W. F. SCHLEY, President, Augusta, Ga.

**CENTRAL RAILROAD.****CHANGE OF SCHEDULE.**

ON and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

**BETWEEN SAVANNAH AND MACON.**

Leaves Savannah Daily at	5 00 A. M.	and	12 15 P. M.
Arrive in Macon	2 15 P. M.	"	1 00 A. M.
Leave Macon	11 45 A. M.	"	9 50 P. M.
Arrive in Savannah	10 45 P. M.	"	7 20 A. M.

**BETWEEN SAVANNAH AND AUGUSTA.**

Leave Savannah	12 15 P. M.	and	9 30 P. M.
Arrive in Augusta	8 45 P. M.	"	5 30 A. M.
Leave Augusta	6 00 A. M.	"	4 00 P. M.
Arrive in Savannah	1 30 P. M.	"	10 45 P. M.

**BETWEEN MACON AND AUGUSTA.**

Leaves Macon	11 45 A. M.	and	9 30 P. M.
Arrive in Augusta	8 45 P. M.	"	5 30 A. M.
Leave Augusta	6 00 A. M.	"	4 30 P. M.
Arrive in Macon	2 15 P. M.	"	1 00 A. M.

**BETWEEN SAVANNAH, MILLEDGEVILLE & EATONTON.**

Leave Savannah	5 00 A. M.
Arrive in Milledgeville	2 45 P. M.
Leave Macon	11 45 A. M.
Arrive in Eatonton	5 00 P. M.

W. M. WADLEY, Gen'l Superintendent.  
Savannah, Ga., Oct., 12, 1855. July 56—1t

## CHINESE SUGAR CANE, OR SORGHO

Sucre!!!—Pure Seed!!!

THE subscribers take great pleasure in informing the Planters, Farmers and Gardeners of the South, that they have secured from the most reliable sources a limited supply of FRESH SEED, of this very valuable plant, the properties of which may be briefly summed up as follows:

1st. One acre of the stalks, properly cultivated, will yield from 400 to 500 gallons of fine syrup, equal to the best New Orleans; and from the same roots, a second crop of excellent fodder.

2d. Sown broadcast or in close drills, on land deeply plowed and highly manured, it will yield from thirty to fifty thousand pounds of superior fodder to the acre.

3d. It surpasses all other plants for selling (feeding green) and fodder, on account of the great abundance of sugary juice which it contains; and is greedily eaten by stock of all kinds.

4th. It bears repeated cuttings, like Egyptian Millet, growing off freely and rapidly, after each cutting.

5th. It stands drouth much better than common corn, retaining its green color and juiciness even after the seed matures.

6th. The seed is excellent for human food, when ground into meal, and fattens domestic animals very speedily. From twenty-five to seventy-five bushels can be raised on an acre.

7th. It is so certain and prolific a crop that planters may be sure of succeeding with it as a Sugar plant anywhere South of Maryland and North of Mexico. If planted early in the Southern States the seed will mature and produce another crop the same season.

The seed, which has been very carefully kept pure, from the original importation, will be offered in cloth packages, each containing enough to plant half an acre, in drills, with full direction for the cultivation, which is perfectly simple.

These packages will be forwarded per mail, FREE OF POSTAGE, to any address, on receipt of \$1.30 for each package. When not sent by mail, we will furnish the packages at \$1 each.

may 57—tf PLUMB & LEITNER, Augusta, Ga.

**FRUIT AND ORNAMENTAL TREES**, including EVERGREENS, the finest collection in the Union. 1,700 lbs. Chinese Sugar Cane, and also parcels of 8000 Seeds, post-paid, for \$1.25. Chinese Imperial Rice White Potatoes, the most valuable of Esculents—the only ones for sale of American growth, at \$3 per dozen—\$5 per 20—\$20 per 100. Osier Willows—8 ft st. \$2—\$2 to \$5 per 1000. Lawton Blackberry \$18 per 100—\$2 per doz. Grapes, Gooseberries, Raspberries and Currants at lowest rates. Linnaeus and Victoria Kihubarb \$9 per 100. Arbor Vitae, small for Hedges, and large sizes. All Evergreens of small sizes for Nurseries. All the new native Grasses. Tree and Shrub, Vegetable, Flower and Evergreen Tree Seeds. Earth Almonds, Yellow and Honey, Locust and Osage Orange Seeds. Strawberries—20 splendid market varieties—\$1 to \$2 per 100.

Printed Catalogues of every Department sent to applicants who enclose stamps. W. R. PRINCE & CO. May 57ft  
Flushing, N. Y.

## NATIONAL AGRICULTURAL AND SEED Warehouse.

NO 251 Pearl street (between Fulton and John streets), New York.

TREDWELL & JONES, Manufacturers, Importers and Dealers in all kinds of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and MACHINERY for Plantation use, invite the attention of Dealers and Planters to their large assortment of Implements expressly adapted for the South—comprising upwards of ONE HUNDRED and FIFTY different styles of PLOUGHS and Plough Castings, and patterns for Casting all kinds of Plantation Machinery.

FERTILISERS, FIELD and GARDEN SEEDS.

Any Implements, Castings or Machinery manufactured to order, at short notice, in a superior manner. May 57—tf

## THOROUGH-BRED NORTH DEVON CATTLE

At Public Auction.

THE Subscriber intends holding his first Public Sale of NORTH DEVON CATTLE on Wednesday, the 17th Day of June, 1857, at his Residence, four miles North of the Rhinebeck Station on the Hudson River Railroad. The animals to be sold will number between 20 and 25 head—males and females, from calves to full grown—all of which have been either bred or imported by himself and have perfect Herd Book pedigrees. As a lot, he believes he may say with truth, they are fully equal to any ever yet offered to the Farmers of the United States. Amongst the number will be the imported Bull MAY BOY (71), and the imported cows, NONPAREILLE (924) and MOSS ROSE (904); also, a number of very pure, Rior Calves of an age suitable to be removed South the coming autumn.

Catalogues, containing full pedigree and all necessary information, are now ready, and will be sent to all desiring them—Arrangements may be made by which animals for the South will be kept until autumn. B. P. Johnson, Esq., Secretary New York State Agricultural Society, Albany, and Sanford Howard, Esq., of the Boston Cultivator, Mass have kindly consented to act as agents in the purchase of animals for such persons as are unable to attend the sale themselves.

There will be no bidding in, but all the animals bid upon will be sold; and no animal on the catalogue will be disposed of until the auction.

May 57

C. S. WAINWRIGHT,  
"The Meadows," near Rhinebeck, N. Y.

## NEW NORTHERN CHINESE SUGAR CANE Seed.

(Sorghum Saccharatum.)

JUST RECEIVED a large quantity, PURE AND GENUINE, from the Original Source, seed for sale at \$1 per lb., and in packets, pre-paid by mail, at 25 and 50 cents each. Two pounds are required to seed an acre.

J. M. THORBUEN & CO.

15 John street, New York.

Vegetable, Flower, Field, Fruit and Tree SEEDS, of the most approved sorts and best qualities, at wholesale or retail.

May 57

## AGRICULTURAL SEEDS.

THESE subscribers offer the following seasonable SEEDS, the growth of last year and of unsurpassed qualities. Dealers and others requiring large quantities, will be served at prices considerably below the rates quoted.

Best quality Red Turnip.....	per lb. \$0 75
Red Top Strap Leaf Turnip.....	0 75
Large White English Globe Turnip.....	0 50
Long White English Norfolk Turnip.....	0 50
Long White Tankard Turnip.....	0 75
Yellow Stone Turnip.....	0 75
Yellow Herden Turnip.....	0 75
Best American Improved Ruta Baga Turnip.....	0 75
Imported Improved Ruta Baga Turnip.....	0 50
Imported Purple Top Ruta Baga Turnip.....	0 50
And 12 other fine varieties of Turnips, from 50c. to.....	0 75
Early Scarlet Horn CARROT.....	1 00
Improved Long Orange Carrot.....	1 00
Long White Carrot.....	0 75
White Sugar BEET.....	0 50
Yellow Beet.....	0 50
Long Red Mangel Wurzel Beet.....	0 50
Fine mixed PRINCE GRASS Seed for Lawns.....	per bush. 5 00
And other Mixtures, or Lawns, at \$3, and.....	4 00

Also, the finest qualities of Red, White Dutch, Lucerne and other Clovers; Timothy, Red Top Blue Grass; English and Italian Ray Grasses; Orchard; Sweet Scented Vernal; The Fescues, and other Grasses, with a large and complete assortment of VEGETABLE, FLOWER and FIELD Seeds of the best qualities at reasonable rates.

J. M. THORBUEN & CO.

15 John street, New York.

Catalogues on application.

May 57—2t

## PLANTATION IN SOUTH-WESTERN Georgia For Sale.

SITUATED on the east side of Flint River, 10 miles below Albany, the river forming the Western boundary, containing 1,346 acres (more or less) first quality PINE LAND. Between 500 and 600 acres are in cultivation, all of which is fresh, none of it having been cultivated more than 4 years. Thirty or forty acres will comprise all the waste land on the plantation. The improvements are a good Gin House, Overseer's House, 6 1/2 lbs. Negro Houses, etc.

The ill health of the proprietor is his reason for wishing to sell. Apply to S. H. HARRIS, on the Plantation, or E. B. BALLOU, Quincy, Fla.

Possession given 1st January next.  
Albany, Ga., March 27, 1857.

May 57—4t

## IMPORTED GARDEN SEED, FRESH.

IN anticipation of late Frosts, I have ordered and received additional Supplies of all varieties of FRESH GARDEN SEED, suitable for the present season.

Orders by mail, or otherwise, promptly attended to.

May 57—tf W. M. HAINES,  
Athens, a, Ga.

## STANFORD'S WILD OAT GRASS.

I AM prepared to furnish SEED of the above Grass the present year, it will be carefully put up and marked, and sent to the depot of Georgia Railroad at Athens, or to an Express Company there, free of charge to Athens, at \$20 per bushel. The quantity of seed to the acre, should be two bushels. But half as much will answer for those who wish to raise their own seed hereafter.

Clarksville, Ga., May 13th, 1857.

JOHN R. STANFORD,

June 57—3t

## "FRUITLAND NURSERY," AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, &c., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing D. REDMOND, Augusta, Ga.

Dec 56—tf

## SOUTHERN CULTIVATOR FOR 1856.

FOUND volumes of the SOUTHERN CULTIVATOR for 1856. May now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address,

W. M. S. JONES, Augusta, Ga.



## FLOWER SEEDS FOR THE SOUTH.

HAVING experienced the great difficulty in obtaining reliable Flower Seeds suitable to the South, I have raised a small quantity, which I am now offering to the public. I would particularly draw the attention of the Ladies to the unsurpassed collections of DOUBLE STOCK GILLIFLOWERS, TEN WEEKS STOCKS, CARNATIONS, GERMAN ASTERS, WALLFLOWER, HOLLYHOCKS, and many others:

## AT TEN CENTS A PAPER.

Double Stock Gilliflowers,  
" Ten Weeks Stocks,  
" Imperial Stocks,  
" Autumnal Stock,  
" Carnations,  
" Wallflower,  
Dianthus imperialis plenissima,  
Rhodantha Mauglesii,  
Heliotropium peruvianum,  
Pharbitis limbata,  
Polygatum lenitifolium.

## AT FIVE CENTS PER PAPER.

Adonis aestivalis,  
Ageratum coeruleum,  
Amaranthus tricolor,  
Althea rosea,  
" chinensis,  
Ammobium alatum,  
Antirrhinum majus,  
Aster chinensis,  
Calendula crista galli,  
Calliopsis bicolor,  
Catanouche bicolor,  
Ceanothus cristata,  
Celosia indica,  
Centourea cyanus,

Delphinium Ajacis,  
Dianthus chinensis,  
Double Balsams,  
Elicrysium lucidum,  
Papaver somniferum,  
" mackanthum,  
Emilea flammea,  
Gomphrena globosa,  
Heris speciosa,  
Ipomea Quamoclit,  
Lobelia trimeris,  
" Murselli,

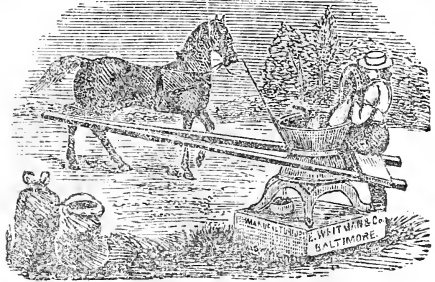
Phlox Drummondii,  
Portulacca Thellusoni,  
Poterium Long visorba,  
Roseda odorata,  
Salpiglossis variabilis,  
Scabiosa atropurpurea,  
Gilia tricolor,  
Senecia elegans,  
Tagetes erecta,  
" patula,  
Verbena Melindris,  
Viola odorata,  
Zinnia elegans,  
Xeranthemum annuum,  
Guaphalium foetidum.

Orders, enclosing the money and a three cent postage stamp for every dollars worth of seed sent to PLUMB & LEITNER, Augusta, Ga., or to the subscriber, will meet with prompt attention.  
Feb57—tf

ROBERT NELSON.

## EVERGREENS AND ORNAMENTAL TREES for the South.

A FEW rare and beautiful EVERGREENS Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embraces the Deodar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vite; Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c., &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address [Dec56—tf] D. REDMOND, Augusta, Ga.

YOUNG AMERICA CORN AND COB MILL.  
The Cheapest and Best.

WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

JOHN &amp; THOS. A. BONES.

March—tf

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next.

RICHARD PETERS.

Atlanta, Ga.

Dec56—tf

## BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address Nov55—tf R. PETERS, Atlanta, Ga.

## CHINESE PROLIFIC PEA!

## THE GREAT FORAGE PLANT AND RENOVATOR OF SOUTHERN LANDS!!

THIS very remarkable new Field Pea is by far the most valuable and productive variety ever introduced. It is well adapted to poor land, yielding at least three or four times as much as any of the common varieties, and producing a growth of vine almost incredible. It grows in clusters of from 12 to 20 pods, each pod containing 10 to 12 peas, and is of course far more easily gathered than any other. The vine never becomes hard, but is soft and nutritious from the blossom to the root. It is readily eaten by stock, and the Peas are unsurpassed for the table in delicacy and richness of flavor.

We submit the following extracts—the first from Ex Governor Drew, of Arkansas, and the remainder from several well known citizens of South Bend, in the same State:

Dear Sir:—The evidences afforded me while at your house by an examination of the quantity of vine and peas gathered from one and a half acres of ground, is beyond anything in the way of a great yield I have ever known.

I think I am within bounds when I say the yield, in pea and vine, is at least five times greater than any other pea—clover, or grass for hay. And the waste peas were equal to any other full pea crop; and from the quantity of waste vines remaining on the ground, I think it will prove a fine manure and supporter of the soil.

Your son, Mr Wm. F. Douglass, has done well in making arrangements for the extended culture of this invaluable Pea in the older States, where it will doubtless do more in re-instating the old, worn-out lands than guano or any other application to the soil, while, at the same time, the yield is likely to be as great on such lands as on the rich bottoms of Arkansas.

Respectfully your ob't. serv't.,

THOS. S. DREW.

FORT SMITH, Ark., December 20, 1856.

To ROBERT H. DOUGLASS, Esq.

Dr. Gorce, of Arkansas, estimated the yield in Peas or Hay at "five times that of any other Field Pea he had ever seen planted." W. R. Lee, Esq., say he "has never seen anything to equal it," and that it should "supercede the use of every other," and the following certificate settles the question of its value for Hay:

"We, the undersigned, saw 'that pea-vine,' and think, after the peas were gathered, that the vine would have made as much hay as a stout man could carry; it covered a space of ten or twelve feet in diameter, and lay from one foot to eighteen inches deep."

WM. C. MEEKS,  
B. W. LEE.

South Bend, Ark., Sept., 1856.

Col. J. B. L. Marshall, Assistant Engineer on the Little Rock and Napoleon Rail Road, says:

"If the Southern Farmers will give it a fair trial, they will find it to be the greatest Pea for table use and for feeding stock, now known. They fatten hogs faster than anything I have ever tried. On the 1 1/2 acres Mr Douglass had in cultivation last year, there was at least four times as much vine as I ever saw on any piece of ground of the same size," &c., &c.

For further particulars, see Circulars furnished gratis by the Agents.

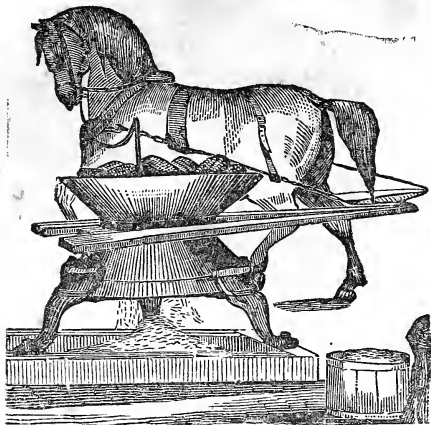
We are prepared to send out a limited quantity of these Peas, put up in cloth packages to go by mail. They will be forwarded, free of postage, to any address on receipt of \$1.50, or otherwise at \$1 each. Current funds and postage stamps will be a satisfactory remittance. Our names will be printed on all packages of the genuine seed.

Any one not perfectly satisfied with the Pea will have his money returned. Address (with plain directions for mailing)

PLUMB &amp; LEITNER, Augusta, Georgia.

\* \* \* Dealers in Seeds and country merchants can be supplied, to a limited extent, at the usual discount, if their orders are forwarded immediately.  
Feb57—tf

# SCOTT'S LITTLE GIANT CORN AND COB Mill, Improved.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials by SCOTT, MOCK-  
BEE & Co., under the immediate supervision  
of the Patente.

**CARMICHAEL & BEAN, GENERAL  
AGENTS, AUGUSTA, Ga.**

THE attention of Planters and Stock Feeders is respectfully called to this MILL, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being only necessary to fasten them down to a floor or platform, and for this purpose the requisite screws and a printed card of directions will accompany each mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over-heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium wherever exhibited; and we challenge the patentees, manufacturers and agents of all other mills, to produce PROOFS of its ever having been equalled at any trial conducted by disinterested persons and on fair terms. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These mills are guaranteed against defects or breakage, when used according to the directions, and as evidence of their durability, a No. 2 Mill, which has ground nine thousand bushels, and a No. 3 Mill, which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold at \$50. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession official written and printed testimonials which we will gladly exhibit to persons wanting mills, showing and proving the superiority of the Little Giant over all others:

## TESTIMONIALS.

AUGUSTA, GA., April 13, 1855.

I have been running one of SCOTT'S LITTLE GIANT CORN AND COBB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour. But I have ground over thirty-five bushels in an hour and a half, or equal to twenty-three and a half bushels per hour. In feeding thirty horses, I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of crusher ever got up and if I could not replace mine, I would not sell it for five hundred dollars.

I. D. MATHEWS.

Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20 1857.

Messrs. CARMICHAEL & BEAN—Gent.—After having used the LITTLE GIANT constantly for two years, I cheerfully confirm every statement made in my certificate of the 3d of April 1855.

I. D. MATHEWS

BEECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta Ga.—Gent.—I have

years, and have fed my stock entirely on Corn and Cob Meal. I had a No. 3 LITTLE GIANT in constant use for the last two have never worked my horses and mules harder than during this time, and they have never been in better condition than they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent. by using the mill.—I am acquainted with several kinds of crushers, but consider the LITTLE GIANT far superior to any I have ever seen.

Yours respectfully.

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gent.—We are using the LITTLE GIANT CORN AND COBB MILLS, which we bought from you, and hereby recommend them to Planters and Stock Feeders as the most simple and durable the most easily propelled and best crushers we have ever seen, and by the use of which we believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr Crawford has two mills in use.)

A. J. RAMBO, Edgefield district, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTUP, Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GOODE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

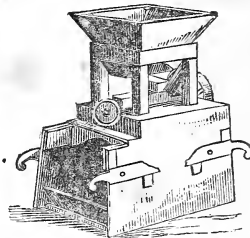
PORTER FLEMING, Augusta, Ga.

JAMES TORRKY, Lexington, Miss.

may 57—tf

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



**FELTON'S  
PATENT  
PORTABLE GRAIN MILL.**  
TROY, N. Y.

FOR Grinding all kinds of Grain, including Corn and Cob, and adapted to the Use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Planter, it is destined to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. It is very simple in construction,—the grinding surfaces are of the most durable character and are self-sharpening, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost,—and the price comes within the reach of every Planter and Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is capable of grinding three bushels per hour with one-horse power, and from six to eight bushels with two horse power: it grinds sufficiently fine for family use, and does not heat the meal—a most valuable feature.

The perfecting of this mill is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. Numerous testimonials in its favor have been received, and will be cheerfully exhibited to all.

All orders for Mills, Communications, &c, will be promptly attended to, and should be addressed to the Agent,

D. CHAFFEE,

May 57tf

Augusta, Ga.

## LAST CHANCE! CHINESE SUGAR CANE AND PROLIFIC PEA!

WE have still a few packages of the genuine seed of the CHINESE SUGAR CANE left. It may be safely planted for a syrup or seed crop, any time before the 1st of July, in this latitude. The CHINESE PROLIFIC PEA will also produce an abundance of seed for next year, if planted soon. Price of these seeds, \$1 00, or \$1 30 per package; when sent per mail, *prepaid*. Address, with plain directions, PLUMB & LEITNER, June 57—tf  
Augusta, Ga.

## An engraving of a horse-drawn carriage. A horse is harnessed to the carriage, pulling it from left to right. The carriage is a simple, box-like structure with a driver's seat at the front. A driver, wearing a hat and a long coat, is seated at the front, holding the reins. Two passengers are seated behind the driver. The carriage is carrying a large, full basket of goods, possibly produce or clothing, which is secured with ropes. The basket is positioned in the back of the carriage. The carriage is labeled 'WATKINS &amp; CO. BALTIMORE.' on its side. The background is a simple, textured ground.

Nov56—tf H. & J. MOORE & CO.

August 56—ly

Atlanta, Ga., Oct. 10th, 1850.

ing Banks. Address

June 57—tf D REDMOND, Augusta Ga.

Arriving at 3 A. M. and 3 P. M.

For the information of the public, and to protect them against fraud and loss, we subjoin a list of the Wild Cat Banks in Georgia, not one of which we deem worthy of confidence or credit. Let the people, therefore, beware of the bills of these Banks:

MERCHANTS' BANK, of Macon.  
INTERIOR BANK, Griffin.  
LaGRANGE BANK, LaGrange.  
BANK OF GREENSBORO', Greensboro'.  
SOUTHERN BANK, Bainbridge.  
CHEROKEE INSURANCE & BANKING COMPANY, Dalton.  
PLANTERS' & MECHANICS' BANK, Dalton.  
NORTH-WESTERN BANK, Ringgold.

BROKE.

MANUFACTURERS' & MECHANICS' BANK, Columbus.

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### SHEEP FOR SALE.

ONE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS, of the Webb stock.  
June 56—tf RICHARD PETERS, Atlanta, Ga.

1857!

1857!

## SOUTHERN CULTIVATOR,

A MONTHLY JOURNAL,

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY & C.

DANIEL LEE M. D. and D. REDMOND, Editors.

The Fifteenth volume commences in January, 1857.

TERMS.

ONE COPY, one year.....\$1 TWENTY FIVE COPIES.....\$20  
SIX COPIES.....5 ONE HUNDRED COPIES.....75  
ALWAYS IN ADVANCE. No paper sent unless the cash accompanies the order.

The Bills of all specie-paying Banks, and Post Office Stamps received at par.

Remittances, by mail (post-paid) will be at the Publisher's risk. Address W. M. JONES, Augusta, Ga.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

### SORGHO SACCHAROMETERS.

THE Sorgho has a number of these instruments—invented and each one proved by himself—which will be furnished to any who may desire this indispensable guide to the inexperienced in SYRUP MAKING.

Full directions accompany the instruments. Price \$3, and 10 postage stamps when sent by mail.

July 57—3t ROBERT BATTEY, M. D.  
Rome, Georgia.

### WILLIS' IMPROVED STUMP MACAINE.

PATENTED MARCH 6, 1855.

Farmers, Mechanics, Road Builders, Speculators and all progressive men your attention is called to this Valuable Patent.

MY STUMP MACHINE has great power. It has no equal.—It is simple in its construction, easily worked, and not liable to get out of repair. Its common weight is about 1500 lbs. It is easily born from place to place, and can be loaded in three minutes, and unloaded, set up, and a 1st stump drawn, all within fifteen minutes. Once fastened, it will pull an acre and a half of stumps without changing anchorage. A single yoke of cattle or one strong horse, is sufficient to work it. With such a team, if necessary, a power of from three to five hundred tons can be made to bear up on a single stump!

One man can work it, though two work it to better advantage.—The time required to extract stumps from six inches to four feet in diameter, will vary from two to ten minutes. With this Machine, standing trees may be taken out, large rocks removed from their beds; and it is the best Machine ever invented not only for pulling stumps, but for moving buildings, and other heavy bodies. All the iron used, is wrought, of peculiar quality, imported, sustaining 57 tons to the inch.

The price of these Machines varies according to weight and size. I will furnish the Machine at any Manufacture, together with an individual right to work it, for \$200. I reside at Orange, Massachusetts, where I manufacture this article, on a large scale, and hold myself ready to furnish it, or sell rights to use it, in any State or Town in the Union, now unused, on terms most reasonable.

This patent begins to be appreciated; all who wish to bring so good a thing into use, and thereby make a "pile of money," should come to Orange, see the inventor, see the workings of the Machine with their own eyes, and if not perfectly satisfied respecting its merits, all the expenses shall be cheerfully paid.

June 57—tf WILLIAM W. WILLIS.

### "FRUITLAND NURSERY," AUGUSTA, GA.

IMPORTANT NEW ARRANGEMENT.

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which number many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen or buds of M. BERCKMANS contain all the best and rarest variety of other fruit known in Europe and America, from which we shall cull every thing of special merit. It is not our object to multiply varieties, but to select, with the greatest care, the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, Ro-cs, Ornamental Trees, Strawberry Plants, Grape Vines, &c, &c, can then be furnished in quantity, at moderate prices.

Full Descriptive and Price Catalogues, sent post paid to all applicants. Address, D. REDMOND, Augusta, Ga.  
April 57—tf

### LAWSON WATERMELLOON SEED.

A FEW packages of genuine "Lawson" WATERMELLOON SEED, at 10 and 20 cents each. If per mail, 16 or 32 cents may be sent to cover postage. Address  
April 57—tf PLUMB & LEITNER, Augusta, Ga.

# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE,

VOL. XV.

AUGUSTA GA., AUGUST, 1857.

NO. 8.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M.D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH--AUGUST.

#### THE PLANTATION.

**Cotton.**—Keep your plows, cultivators, and sweeps, going briskly among your cotton, to destroy the weeds, encourage a large growth, and prevent the falling of the forms. Towards the latter part of the month, begin your preparations for picking, and as soon as the bolls begin to open freely, set the hands at work, gathering. Have all seed cotton hauled in wagons from distant fields to the gin-house, and do not require your negroes to waste their time and strength in carrying heavy baskets. If you wish to weigh the picking of each hand, it can be done by the overseer, before it is put into the wagons, or each "hand" can mark his basket and have it weighed at noon and night, at the gin-house.

**Corn.**—All early planted corn is already laid by, in most sections; but very late fields may yet receive another careful surface working, laying it by level, mellow, and free from weeds.

**Cutting up Corn Stalks for Fodder.**—In our last number we furnished some objections to the very common practice of *pulling fodder*, and advised the substitution of drilled corn, which we have long found to be an excellent and economical article, both for "soiling," (or feeding green,) and winter hay. We will offer another hint for the consideration of our readers. It is, to *cut up their corn stalks at the ground*, as soon as the ears begin to glaze, or get hard; set up in shocks every twenty or thirty hills thus cut, and when the whole is perfectly dry, haul under cover or carefully stack up; shuck or strip off the ears at your leisure, and save all the stalks, blades and shucks for the winter feeding of stock. This hint is especially intended for small planters—those who aim only to raise sufficient corn for their own use, and who desire to make the most of it, and to save all that is worth saving. Our objections against fodder pulling, (as before stated,) are that it is a slow and laborious process, and that the yield and weight of the grain is lessened by pre-

maturely depriving the plant of its leaves. If fodder is pulled *before* the grain become glazed, you certainly injure the grain; and if you do not pull until the ears are fully ripe, the fodder is nearly worthless. The proper plan is to cut up your corn as directed, just when the grain is passing from the doughy state to the hard kernel. At this period of its growth, the plant has elaborated sufficient sap to mature the grain perfectly after it is cut, and the surplus starch, gum and saccharine matter which it contains will be preserved in the stalk and leaves, instead of being changed to hard and worthless woody fibre, as when the plant is allowed to become perfectly *dead ripe*. Another advantage in thus cutting up corn is, that as soon as it is hauled off, the ground is ready for the plow, and after it has received a good manuring you can proceed immediately with the sowing of your winter oats, rye, barley, clover, etc., etc. Let those who have scanty crops try it, even on a small scale, and they will need no urging to continue it hereafter.

**Feeding Corn Stalk Fodder.**—In order to use corn with proper economy, every farmer and planter should have the "*Little Giant*," or a similar mill, for grinding both corn and cob. To this should also be added a Feed Cutter, suitable for cutting hay, sheaf oats, corn shucks, etc., etc. With this latter implement, the corn stalk fodder, shucks, oats, hay, and other "roughness," may be finely cut up, and when mixed with a proper portion of corn and cob meal, slightly moistened, (with an occasional sprinkle of salt,) you have an excellent and cheap provender for all kinds of farm stock. Roots, such as *Turnips*, *Sweet Potatoes*, etc., when plenty, may be added to the foregoing from time to time, and they will be found to give increased relish and improved health to your animals.

**Turnips.**—*Ruta Baga*, *Red Top*, *Early Flat Dutch*, *Yellow Aberdeen*, *Norfolk*, *Globe*, and other *Turnips*, should be sown from the 1st to the 25th of this month. The ground should be repeatedly plowed very deep, and pulverized as fine as possible. A deep, rather light and fertile sandy loam is best for this crop, and such soil ought to be plowed at least ten or fifteen inches, and thoroughly harrowed. Sow in drills from two to three feet apart, plants standing in the drill from six to twelve inches.



Stable manure, (ten or fifteen loads to the acre,) woods-mould, ashes and broken bones, equal parts, (six or eight loads to the acre,) or three hundred pounds of guano, scattered broadcast and plowed in, will give you a good crop. Should you wish to manure in the drill, open a wide and deep furrow with a long shovel plow, scatter your manure thickly along this drill, throw a flat, broad bed on the manure with a turning plow, and after raking the surface smooth and even, drill in the seed as above directed. From one to one and a half pounds of seed, mixed with sand and carefully sown, will be sufficient for an acre. [A friend recommends the sowing of the seed late in the after noon, leaving the drill open and the seed exposed to the action of the dew until daybreak, next morning, when they must be covered, and the ground rolled or pressed down firmly on them. This plan seems well worthy of a trial in dry weather.] If you have plenty of leached ashes, you may top-dress the ground with ten or fifteen bushels per acre, after sowing. It will be well, also, to dust the plants when they first come up, with a mixture of ashes, soot, plaster and salt, (a bushel to the acre,) to prevent the attacks of the fly. Continue this until they get into the rough leaf, when they may be considered out of danger. When the plants are well up, clear out all grass and weeds with the hoe, and thin them to a stand of from six to twelve inches apart, according to the size of the variety. After thinning, work them out from time to time, until the tops shade the ground, when you may lay them by.

*Sweet Potatoes.*—Keep the earth fresh and loose around the plants, and the rows entirely free from weeds, until the vines take complete possession of the patch. Lose no time now in cutting and setting out vines for the production of next year's seed.

*Hay and Fodder.*—Cut and carefully save drilled corn fodder (as directed in July number, page 201); also, make all the Hay you possibly can from Crab (or Crop) Grass, Crowfoot, Pea Vines, tops of Ground Peas, Bermuda Grass, Chinese Sugar Cane blades, Millet, etc., etc.

*Ditching, Hauling Muck, Woodland Pastures, Strawberry Beds, etc.*—The dry weather of this month will be found favorable to the ditching and draining of low, wet lands, clearing up of swamps, cutting underbrush, digging and embanking fish-ponds, preparing Strawberry patches, clearing the undergrowth of forests for woods pastures, hauling of muck to the compost heap, destruction, by compost fermenting or burning, of noxious weeds, etc., etc.

#### THE GARDEN.

All plants of the Cauliflower, Broccoli, or Cabbage family, may be set out the latter part of this month for fall and winter use. This month may be considered the second spring in the South. All work done in the spring should now be repeated, and will, in most cases, furnish us with excellent vegetables until frost. Continue to transplant Celery. Full crops of the different kinds of Turnips should be sown during the month, as directed above. Sow seeds of Beets, Salsify, Carrots, etc., for winter use—shading the ground, by a slight "brush arbor," from the hot sun. Radishes, Spinach, Lettuce, etc., may be sown, and Snap Beans and English Peas may be planted, and the drills, as soon as filled up, covered with a pretty heavy mulching, at least one inch thick; saw-dust or well rotted leaves are very good for it; the young plants will easily come up through the mulching. Plant, also, Melons and Cucumbers for mangoes and pickles. Keep down all weeds—use the hoe, and water freely. Plant a second or fall crop of Irish Potatoes and Peas, mulching both heavily with leaves. The Purple Egg Plant, Tomato, and Lima Bean, may be

planted for a late crop, and will come yet, with "favorable seasons." Keep your Strawberry beds clean, open and mellow, now, if you desire to increase your plants, and encourage the growth of runners by an occasional watering. If you do not want runners, cut them off and turn them under, to give back their substance to the bearing plants. Give these occasionally a light top-dressing of leached ashes just before a shower, or water them with a *very weak* solution of potash. Gather all your ripe garden seeds. It is a mistaken notion that we cannot save our own garden seeds; we *can* and *ought* to do it.

#### THE ORCHARD AND THE NURSERY.

Gather up all fallen and defective fruit and feed to the hogs. Save stones of the Peach to produce new varieties and for seedling stocks. Let the Peaches, from which you obtain seeds for planting, be *fully ripe*, if you are endeavoring to re-produce them or originate new varieties. Bury the Peach stones at once, or plant them immediately, in drills, where you want them to grow. This is the best way. They will come up next April. Try a few hundreds or thousands yearly, and you will, from time to time, be rewarded with valuable Southern seedlings, especially suited to our own soil and climate. Budding of all stone-fruits may still be continued by those who have the proper stocks. Insert the bud on the north side of the stock, early in the morning, or just before night fall, ceasing operations in the heat of the day. Now is, also, the time to make cuttings of Evergreens.

#### THE FLOWER GARDEN.

Collect seeds of all Annuals, and preserve them carefully. Bud Oranges and Lemons. Propagate Aloes and the Cacti, (or Cactus,) by slips. Sow bulbous rooted flower seeds to obtain new varieties. Stake your Dahlias and thin out your flowers, if too profuse. Clip Box edgings in moist weather. Cut and roll Grass plats and lawns. Clean up walks, put on fresh gravel, and roll smoothly. Water your potted Annuals and other plants daily, in hot weather. Sow Tulip and other bulb seed. Gather all valuable seed as soon as ripe, and save for future use. Use water frequently, as heretofore directed.

#### IMPROVEMENT OF LAND.

MR. G. D. HARMON has a short, but quite suggestive article on the improvement of land in our last issue, which prompts us to take up the subject at the point where he has left it and discuss it at greater length. He asks, "What is agricultural improvement? Is it to be found in the theory of planting 25 acres to the hand and working a 'big crop' for 4 or 5 years, wearing out your land, and being compelled to clear the balance of your woodland that you had left for timber, or move to another country?"

Of course, this practice is the reverse of what Mr. H. regards as agricultural improvement. He does not define the meaning of the terms as he understands them; but we infer that he would at least keep land as productive as it was in its best estate as a virgin soil. In that case the improvement would consist in the subduing and cultivation, and in adding, from time to time, so much of the elements of fertility as would keep the supply in the soil equal in amount to all that nature originally furnished. In this way there would be no diminution of the raw material for making annual crops, and the perpetual freshness of Nature would extend her choicest blessings to the wise and just cultivator.

Something like this ought to be the popular and com-

mon standard of tillage operations—the normal condition of American agriculture. Every man might say then that his land, no matter how long it had been under the plow, was as rich in all the elements that form grain and cotton, hay and vegetables, as a kind Providence had made it. He could affirm that he had not abused *the trust* which God had placed in his hands for the greatest good of the human family. As an accountable being, he dare not leave the arable land of his State any worse for producing cheap bread, and cheap clothing than he found it; for as he did not create the fruitfulness of the soil he cultivates, he had no moral right to destroy it. No such right can possibly exist, any more than one has a right to burn a city for personal gain, or otherwise wrong mankind for his *mistaken* private benefit. The certain immorality of impairing the natural capacity of land to support society in social intellectual and physical well-being is a fact too little considered by the public. Such an injury to the soil of a whole continent or island, would inevitably not merely impoverish its inhabitants, but prevent their possible progress in arts and sciences, in learning, and above all, in the discharge of religious duty. It is the positive debasement of man as a moral and social being, ultimately, by desolating the land in which he lives—hardening his heart as the sun burns and petrifies the naked clay of a barren field—that makes the practice of land-killing so much to be deplored. The worst feature in the evil is the fact that its consequences are so little appreciated by the people at large. They seem to believe that to restore to millions of acres of impoverished land all the ingredients removed, and foolishly wasted by the mismanagement of half a century, is the labor of only a few years. A graver mistake was never conceived. Something may be done to impart permanent improvement to an impoverished farm in a few years; but one must be peculiarly favored with great resources in potash, bones, gypsum, salt, lime, &c., to give to several hundred acres a full supply of these earthy elements of crops. Such wholesale command of phosphates, sulphates, chlorides, and nitrates, no farmer now possesses for the improvement of land. Hence, the prodigious waste of these substances in all cities, drawn primarily from the soil, and transported thither to feed and clothe their inhabitants, is a wrong of fearful magnitude. Perfect restitution of these ingredients which are not supplied by moving water, nor by the atmosphere, to agricultural plants, is *the true theory* to prevent the partial or complete failure of wheat, or other valuable products of agriculture. But how is this perfect restitution to be made? We answer, in a variety of ways.

1st. By reducing its necessity to the *minimum*, in not going over more surface with the plow than can be tilled in the most thorough manner. This practice gives the maximum of crops with the least damage to the land. 2nd. As much of the produce of the soil in every field should be left to decay where it grew as possible, that its vegetable mould be not exhausted; for this mould has much to do in nature's economy in drawing alkalis from their union with flint sand and clay. The want of mould in long-cultivated soils, and on galled places, tends to perpetuate their sterility. Make full restitution, and the primitive fertility, whatever that may have been, will be attained. In decomposing leaves, weeds and grass, not a little mineral matter is supplies to the soil.

3d. Planters should keep more and better live stock, make more and better manure, and thus have the good sense to feed the land that feeds them. The dung of fattening hogs may be distributed over pea and oat fields while gathering their food; and in this way plenty of good meat may be produced at the smallest expense, while the soil is enriched by elements drawn from the

subsoil and atmosphere. It will pay on naturally poor land at the South, in the long run, to adapt it by artificial means to the growth of clover; so valuable is this remarkable plant both for keeping stock and improving the soil. At all events, the cow-pea is not an adequate substitute, and particularly fails in the spring, when young clover is flush and most nutritious for cows giving milk, sows rearing pigs, and mules, horses and oxen working on the farm. To keep stock the three months before the native grasses of the South are grown enough to give cattle full bellies in a few hours, is the most troublesome part of stock raising in this country. Practical men will agree with us on this point; and to them one who has raised 100 bushels of clean clover seed a year, and been familiar with the plant all his life, may suggest at least a trial of this forage crop, having in view the improvement equally of farms and of domestic animals.

We have frequently traced the long tap-root of clover over 30 inches into the ground, showing that it is able to draw potash, lime, phosphoric and sulphuric acids from the deep subsoil. Its numerous leaves are broader than those of lucerne, and we regard it as a better forage plant, although not so durable, and we fear less hardy at the South. Both of these plants are deserving of more attention than they receive for keeping stock and making manure. If one's land is so poor that he cannot well have large fields of clover, let him try small fields; making them rich by cow pens, or by ashes and leaves, if other means are not at hand. Strong limestone soils are best for clover, lucerne, peas, and, we believe, for all other legumes, as well as for wheat. So far as one's land lacks the earthy elements of wheat and clover, and they are the same in both plants, he should try to add them to the ground that needs them. If he had an unlimited quantity of cotton seed he might soon have rich clover and wheat land; for the seeds of our great staple plant take from the soil the precise elements needed to form wheat and corn, clover and peas. We are disposed to exalt cotton seed as a fertilizer, because for two years we have found it the cheapest manure that could be purchased in Georgia; and we feel confident that the tap-root of the cotton plant is not permitted by any system of *one mule plowing* to descend half deep enough into the earth.

Let it go down into fresh pasture—into virgin ground that never before yielded phosphates to nourish the germs of a cotton seed nor the germs of corn. If you had a clear idea how these germs grow, how the seeds of plants form the flesh and bones of animals, and how rootlets spread out, and diffuse themselves through all *permeable* soil to imbibe the elements of seeds, you would certainly be willing to plow a little deeper, and harrow a little more with good harrows, than you now do.

4th. It appears to be a principle, or law of our Creator, that land shall not be improved by tillage, from generation to generation, any faster than the Mind of the owner is improved.

If a different law prevailed, every State in this Confederacy would not now show so many signs of damage done to cultivated land, and prove the necessity of studying agriculture as a science. Cultivators have only vague, dark and unsatisfactory notions as to the precise things that form a crop of grain, or one of cotton, or of potatoes. To their minds, fertility is an agricultural abstraction, and the improvement of land its first cousin. To expel this half clouded moonshine from the human understanding, and let in the vivifying sunshine of true knowledge, let us for a moment consider first principles in farm economy. It is impossible that a crop which is *something* can be made from *nothing*, unless God were to create new matter for that purpose. To have a kernel of corn, or a seed of wheat or cotton always the same in its germ and elements of nutrition, whether for the growth of the germ, the

growth of a pig or a child, it makes no difference, the seed needs during its own growth *such things*, and such things *only* as are peculiarly adapted to support equally the germ of the plant and the germ, (only more developed) of an animal. Now, land that abounds in the things (which are well known) that make the seeds of our cotton and wheat plants, is rich land. Like water and carbon, some of these things are abundant in nature, and can be bought cheap; while others, like ammonia, potash and phosphoric acid, are more difficult to be had and are therefore expensive. Every farmer should be familiar with these substances as he is familiar with corn and wheat. Phosphoric acid combined with potash, lime and magnesia, forms some 94 per cent. of the earthy part of both wheat and cotton seed; each contains the elements of ammonia, and both furnish excellent manure solely because both have taken it out of the ground. To take manure out of the earth in the shape of grain, and secondarily, in the form of meat, and waste both, is not farming, but simply killing land. Farming implies the making of full and perfect restitution to the earth that yields either grass for stock, grain for bread, or cotton and tobacco for market. Good farming implies more than this. It demands the *increase* in the soil of the elements of fertility till its common average crops shall be 70 bushels (14 barrels) of corn, and 30 bushels of wheat per acre. To own such land in an old healthy and well settled district, with excellent schools, churches, society, roads, railways, and all other benefits of advanced and refined civilization, is an object of the first importance. So far as the South lacks these advantages, it is the duty of all to labor for their attainment. It is better for us to wear out than rust out—to change things for the better, rather than let things change our children and the community from bad to worse. Society cannot stand still; it will either improve or deteriorate, like the land we cultivate. A great deal that appears gold on the outside is only galvanized with the precious metal, having base copper under the thinnest possible covering. Families that unwillingly allow their tastes to be corrupted by the glitter and tinsel of flash equipage, furniture and dress, cannot possibly enjoy life anywhere. Their lives are in rebellion against both good sense and nature, and are likely to end in shame. If less money were used for show and sheer dissipation, there would be less occasion to over tax the soil, and more means for its skilful improvement. Planters, their wives, daughters and sons, should take more interest and pride in the noble duty of enriching land, so that it will yield them a better income, support fine fat cattle horses, hogs, sheep and poultry, and be the subject of praise in the whole county. Learn to *enjoy wisely* what you have, rather than become mere beasts of burden in trying to get more. Make home pleasant in every respect, and the homestead a model of plantation neatness, thrift and contentment. Let Order be a law unto all, that no jar shall disturb the harmony, no neglect lessen the industry of the laborers; but that all shall move forward with ease and cheerfulness to the accomplishment of the work before them. Raise an abundance of garden vegetables and preserve them as long as possible, that the consumption of bacon may not be an unwelcome drain on the purse. All things considered, the cheapest, and perhaps the best meat a farmer can have for his own table is good lamb, for lambs and sheep almost rear themselves without care or trouble to their owner. Fat pickled mutton put up in barrels is excellent six months in a year, and costs but little. Kids are well worth raising for their flesh, and their parents are at once healthy, hardy, prolific, and able to defend themselves from the attacks of vicious dogs.

These remarks are made from a conviction that more attention should be paid to live stock, and domestic economy generally, to render the improvement of land easy

and natural. Both plants and animals are endowed with a certain power of accumulating their appropriate aliment, as well as with the power of multiplying their respective species. This cumulative function is less understood than that of procreation, although a part of one system of organic life. Its duty is to aid plants and animals in the task of seeking and providing food for their offspring. If the secretion of milk in all mammiferous females is one expression of nature's care for the young, the holding of rain water and the secretions of acids by which mosses extract potash, lime and phosphates from granite rocks, and ultimately form a rich mould, are no less proofs of the Creator's care in providing food for the sprouting germs of plants of a higher order than mosses. We have frequently employed cryptogamic plants to extract fertilizers from rocks to be used in experiments in growing wheat on artificial soils. Old field pines accumulate both organic and inorganic matter quite rapidly where they have a luxuriant development. This function is curious and instructive in its relations to the improvement of land. Pines have long taproots, and longer surface roots, with which to drink in abundance a most diluted aliment. Their carbon and water, and nitrogen, in the shape of ammonia or nitric acid, are derived from the atmosphere. Keep some plant or plants, ever growing on the land you would enrich, but let the soil have the *debris* of such vegetable structures. L.

#### THAT CHINESE PROLIFIC PEA.

EDITORS SOUTHERN CULTIVATOR—I have been a subscriber to your useful and welcome monthly visitor for several years, but have never suffered my name to appear within its pages, and should you think this unworthy, you are at liberty to throw it over among the rubbish.

Long since I learned the duty of supporting the sinking character of my fellow man. Seeing that my esteemed friend, Douglass, has had his assailed, even to stretching to long yarns (as a correspondent said in last August number) I feel disposed to come up from the vault of obscurity to vindicate it, and I am not alone here. My faithful conductor, Mr. Quinby, U. S. Marshal, after examining "that Pea" which was given me by Mr. Douglass, and growing in my farm, said he could do the same. He was perfectly carried away with astonishment while beholding the thick clusters of peas, and the rich, thick foliage.

I have been a pea raiser thirty-five years, and profess some knowledge in growth, variety, importance to land as well as stock, and durability of seed and am forced to to the belief that the China Pea is superior. "I speak that I know, and testify what I have seen." They are growing thick on the ground where they were planted last year, and if such a winter as the past would not destroy them, we have nothing to fear. I have sowed peas among my wheat in the fall and oats in spring to advantage, and were I living on poor land now I should certainly sow the China Pea as an improver to land if not for hay, which I know to be superior to any other hay I have ever raised, all things considered.

In conclusion I would advise my old native North Carolinians to begin with this Pea to improve their land, it being much cheaper and I think better than digging marl, or buying guano.

A word more. I have suffered my stock hogs to run on peas all my life and never lost one thereby. True, they need attention in the summer. If they get very poor it is difficult to recover them. If they take the staggers, split the skin over the brain and fill in with fine salt—it cures for me. If desired, more anon.

S. J. JONES,

Plum Bayou, Jefferson Co., Ark., May, 1857.

## AGRICULTURAL LECTURES IN GEORGIA.

EDITORS SOUTHERN CULTIVATOR—Some time since—in March or about 1st of April—I made a request of the planters of Georgia, and not having seen it, as yet, in print, I try again to renew it, and earnestly ask of you either its publication or such a notice as will bring the matter before the citizens of Georgia.

It is known to every reader of the *Cultivator*, that Dr. Terrel, a benefactor, made a donation to the University, and that Dr. Daniel Lee, one of the Editors, was invited to take the Chair, and that he has done so.

That Dr. Lee is eminently qualified to enlighten the planters of Georgia, as well as the residue of us South, is fully shown through the columns of the *Cultivator*, yet, being invited to the Professorship by the intelligent Board of Trustees, is no small recommendation to public confidence.

Dr. Lee is engaged only a portion of this time as Professor, and if he is willing and you, the people would call him out, he certainly can do far more general good.

I would propose that he be invited to deliver lectures through the length and breadth of the State, at every county site at least, as also at any point where an Agricultural Society is in being. The State should appropriate a sufficient amount to pay expenses of travel, board, chemical apparatus, and a fair salary for services, which in addition to present salary, would enable Dr. Lee to live, not from his private means, but at the cost of those he serves. The laborer being "worthy of his hire."

It seems to me that Georgia is losing a great advantage which could be secured at a trifling cost.

The advantage I refer to is, not alone the information that Dr. Lee could give, but also in collecting of much material to aid him in making his lectures in the University more adapted to the wants and use of every portion of the State; in stimulating many citizens to an exertion, or an increased one; to the constituting of many Agricultural Societies and Clubs; and collecting many valuable specimens for developing the agriculture of the State.

Really it seems to me that Dr. Lee could vastly increase his usefulness to the cause by such a course, and I am surprised that the matter has not long since been broached. Last May, when passing through Georgia, I named this to a few as I journeyed, and the objector has yet to be met.

We of the South can be profited by an intelligent agent taking a tour through the entire South, examining the tools, seed, frame buildings, mode of culture, stock and a thousand things, to be reported through State publications, so that the information would be public property. Give the means of procuring a small supply of such seed as he would deem advisable to try, as well as drawing of improvements, frame buildings, &c.

It might be extended to a trip across the water and there to collect such information as would benefit the agriculturist.

One or two labor-saving implements alone would pay all the cost to the State of Georgia, even if no other good be done. It appears to me that the great, the leading Agricultural State, might do all this. What is three or five thousand dollars per year to Georgia, in comparison with the great gain? Send Dr. Lee across the water and publish his reports, adding only 50 cents a vol. on cost of publication, and agriculturists will pay all cost. A little public spirit on the part of the Georgia Society, will add to her means and utility. Georgians will please pardon any apparent meddling. You, my fellow citizens are doing great things, I only hope to aid by every suggestion

M. W. P.

Mississippi, 1857.

REMARKS.—Dr. PHILIPS has our best thanks for the

above friendly suggestions. The high price of corn, bacon and other provisions, as well as their general scarcity at the South, would seem to indicate a serious defect in our present farm economy. Plain, practical lectures, pointing out these defects, and stating how they may be remedies, addressed to agriculturists assembled at courts, could hardly fail of leading many to adopt a better system of husbandry. Explanations may be given where one talks face to face, and thus remove objections and difficulties, which in writing for the press is comparatively impracticable. Men like to ask questions, and bring particular facts in their personal experience to the consideration of some one who has studied and read more on the subject than they have; and a social visit and lecture from one entitled to their confidence would often enable them to make important improvements. They may have valuable resources for enriching all their arable lands, but are in doubt how best to use the fertilizers at their command. In a word, careful investigation is needed for the advancement of the truly vital interest of the South. We will not here undertake to indicate how sadly this interest must suffer, if much longer neglected. Deeply have we pondered that system of tillage and plantation economy which prevails generally, and its future influence on the destinies of the Planting States. It is a momentous theme, lightly as many consider it: for the soil we now scourge will one day refuse us both bread and meat, unless we treat it better. A general reform is our only hope to save the "Sunny South" from positive ruin. To promote a change for the better, the writer will visit many counties before the close of the present year, and appeal to the people in behalf of that domestic policy which will make, if adopted, the South the garden of America. God has given us all needful elements; and we have only to use them wisely to achieve noble and honorable results. Something *must* be done; and if the humble writer can awaken no sympathy, and shall fail in his labors, he could hardly fail in a better cause. L.

## NEGRO HOUSES—SUNDAY LABOR, &amp;c.

EDITORS SOUTHERN CULTIVATOR—"Their houses are too often left to the negroes themselves, to build in their own time, perhaps at night, or during the Sabbath, which easily explains their careless manner of construction."

This extract is taken from the article of Dr. John M. Furner, in the June number of the *Southern Cultivator*, and I very much regret that a Southern man will use such unguarded expressions in a Southern agricultural journal, and at a time, too, when the "negro-worshippers at the North" are trying to move heaven and earth against the South, and will take every advantage possible, fair or unfair. If the above extract should, perchance, meet the eye of Greeley, Beecher & Co., what a lamentable howl would be raised for the poor "gentlemen of color" in the South, who were compelled build their own houses at night, or on the Sabbath!—thus being deprived not only of sleep, but, also, of rest and worship on the Sabbath!! "Bleeding Kansas" would, for the time, be forgotten, and all eyes turned to the "down-trodden Africans" of the South. What holy horror would convulse their black (republican) hearts!

But is the extract referred to founded in fact? Pardon me if I should say, in all candor and good feeling, I think

not. Dr. Turner speaks of the subject as though it was a pretty general thing. He goes on to describe the ugly appearance and uncomfortable condition of negro houses, and traces the cause to night and Sabbath working. Now, if Dr. Turner is correct in his statement, it is passingly strange to me that, after managing negroes for the last twelve years and being in ten Southern States, not a single such case has come under my notice. And I rejoice to know that I have never lived in a country where the people were so utterly lost to moral and religious feeling as to *permit* even, much less *compel*, their negroes to construct their own houses at night or on the Sabbath; and God forbid I ever should. I regret that it has been the misfortune of Dr. Turner to have lived where so little regard was paid to the Sabbath, as well as humanity.

We are doing more against the institution of negro subordination at the South, than our enemies at the North! Suppose the abolitionists had charged upon us that we made our negroes build their own houses at night and on the Sabbath, where is the Southern man that would not have looked upon the charge as a slander?—who would have admitted it?

But I leave the subject, hoping that no such expression as is contained in the extract above, may ever again fall from the lips, or slip from the pen, of a Southern man.

Yours, &c.,

G. D. HARMON.

Utica, Miss., June, 1857.

#### FIELD PEAS AND THEIR CULTURE.

EDITORS SOUTHERN CULTIVATOR—Seeing all pretty much have dropped off from the Pea question, and their cultivation rapidly increasing in the South is presumptive evidence that the small portion of poison mixed with the large quantity of nutriment they contain is not considered dangerous to stock. I have, therefore, concluded to give your readers a short piece setting forth the most successful mode of planting and cultivating the whole Pea family—Garden Peas included. To secure full crops of either, they should invariably be planted thick; and I want no better evidence of the farmer or gardener not understanding his business in Pea raising than to see them scattered about, one or two in a place. The same number of vines will not bear as well thin as they will thick. They want company to make them prosper, and will dwindle into insignificance as soon by themselves as a social man would to confine him to a hermit's cell.

I planted a Marrow-fat Pea this year, that stood as thick on the ground as Blackberries on a bush, and raised them from six to eight feet high; and the best crops of the Cow Pea I have ever raised would have averaged from twelve to fifteen Peas in a hill, and they covered, at maturity, the whole ground, and corn also. This is what I call Pea raising to make a sufficiency to fatten all your stock, and manure your land, also. What is better than to have your corn fields shaded by the rich pea vine during the heat of summer, and in the winter let the vines return to the earth as food for another crop? It must be admitted, by all experienced planters, that they answer a double purpose; because they have a tendency to improve our land, whilst they are furnishing a wholesome food for man and beast; not only so, you make full crops of Corn on the same land.

The most successful time for planting the Cow Pea, (which I consider the best of all field peas that I have ever tried,) is about the 25th of May, and to give them one plowing and hoeing, which the Corn also gets in laying it by, this, with a few showers of rain, makes you a full crop of Peas. But, says one, my Corn is not clean enough by that time to plant Peas. I admit this is the case with many, and there is no better evidence of a sorry farmer than to see his Corn choked up by the grass

or weeds the last of May. It was very unfortunate for such farmers that ADAM'S transgression put him out of the Garden of Eden, and entailed on such persons the losing of a few drops of sweat, to sustain animal life. Such people, in every age, have been the corn buyers of our country; and if they are not able to buy, we have to give it to them, or keep our cribs locked.

I have but very little confidence in sowing Peas for a certain crop, for two reasons. In the first place, to sow them with Corn it has to be done after the corn is laid by, which makes them too late; and, in the second place, if it sets in wet, about the time they are sowed, they are choked up by the grass and weeds, and the crop is lost, if they had time to mature.

I will now give you the most successful mode of raising the Garden Pea, I have ever tried. Have the garden made rich with well decomposed manure, this, with spading deep, will keep them from firing; lay off two rows, parallel, one foot apart, leaving a space of four feet between the next two rows, to be layed off the same distance; open shallow, and sow very thick, and cover them about three-fourths of an inch deep, and then cover each row with boards or plank, until they sprout; then remove the boards; this prevents the ground from baking, and causes them to come up much better, and grow off more vigorous. This covering with boards or plank will be found very advantageous for all forward vegetables.

In conclusion, Messrs. Editors, as Agriculture is the great engine that propels every occupation of our country—all looking up to it as children to a parent for their daily subsistence—I, therefore, hope I will not be transcending my limits in saying something about the management of railroads before I close.

I left my residence, last spring, accompanied by my wife, and went east as far as Maryland, and was much pleased in taking a view of many well conducted farms and gardens on my route, and I, also, had the pleasure of passing through the handsome city of Augusta, from which point DANIEL LEE sends forth to the great South his many lessons of wisdom, and would have been delighted to take him and his co-laborer by the hand, but the cars said, No! Still my enjoyment would have been greatly increased had I not seen in the Empire State of the South a strange species of aristocracy sticking out, much to the annoyance of the ladies. Women, Messrs. Editors, are very fond of attention—some of fops, some of gentlemen, and others of their husbands, and waiting girls and the etiquette of the present age, combined with the great privilege of living under a democratic government, gives them their choice of attendance, as well as their mode of travelling; still on the train from Augusta to West Point that privilege was denied my wife by the conductors of the cars, who actually sent her waiting girl out of their first-class car, as they call it, to a second class one, intended, I suppose, for rowdies, whilst every fop was permitted to crowd into their No. 1 car, unmolested by the conductors, and much to the annoyance of the ladies; and a person would suppose, from the dignified mein assumed by the conductors in passing the Empire State of the South, they had received a mission, from James Buchanan, to some foreign court, instead of the employment of conducting the "iron horse" from point to point. I hope that the proprietors of that line through Georgia will see the necessity of making a change before they are injured by such foolish regulations. If one car was reserved for the ladies and attendants, white and black, and kept as private as a ladies' saloon on a steamboat, it would be much more agreeable, particularly to those not using musk.

Most truly, yours,

E. JINKINS.

Horse Pen, Mississippi, June 1857.



## RECLAIMING SWAMPS.—REPLY TO "J. W. OL."

EDITORS SOUTHERN CULTIVATOR—I see in the July number of the *Cultivator*, that the above rhetorical gentleman is doing his utmost to persuade his friends and "the public in general," to desist from the "modern ruinous practice," of reclaiming their lowlands and stagnant pools. Well, what would he have them do in lieu thereof? Why, of course, continue to scratch their old sand-hills—that were worn out before he was born—and let their most fertile lands remain in a condition dead to all profit, to send forth a poisonous malaria to generate fevers and deadly diseases, to sweep in "Doctor's fees," the scanty earnings of the gullied, poverty-stricken highlands! "J. W. Ol." has imposed upon himself a hard task indeed, and his efforts to stay the ponderous wheels of the car of agricultural progress will have about as much effect as those of the ram's did, who vainly endeavored to stop the swinging of a hickory maul by butting against it, until he knocked out his own brains without scratching his formidable adversary.

But it seems that "Ol." has the advantage of many, as he professes to base his argument upon *bona fide* "experience." I will admit that experience is good, for it is an old adage, that "even fools can learn in such a school." I do not apply this to the gentleman by any means, but there are different kinds of "experience," viz: thorough and partial. I presume that "Ol.'s" is emphatically of the latter kind: in a "nut shell." Necessity, years ago, drove our farmers into the swamps, and what is the result? Why, a great portion of our earthly domain, once considered useless, has been beautified and purified, and made luxuriant in the richest fruit, to cheer our hearts and gladden our eyes, and stay the spirit's flight to its eternal home. This ditching process is carried on in every highly civilized agricultural country on earth—and I say let it speed on in North America from the wilds of the mountain's top to the ocean's verge, from the Atlantic's wave to the rock-ribbed shore of the Pacific, until our low-grounds shall wave in one general harvest, and starvation be forever driven from our land!

But what is "Ol.'s" herculean argument against ditching, &c.? Why, to use his language, some of his neighbors "have been broken totally and absolutely forever," by it!! It seems that they are not only *smashed* for time, but all eternity, for he not only uses the term "forever," but thunders it out with emphasis; if this be the case, they are bankrupts indeed, both spiritual and temporal. Now, I know his neighbors, with the exception of those poor unfortunate creatures that "have been broken totally and absolutely forever"—I know nothing about them; though there is no kind of business that men deficient in judgment will not sometimes manage to disadvantage, and also forget that "large ships may venture more, but little boats should keep near shore."

His neighbors, as a general rule, do not regret the capital that they have expended in reclaiming their swamp lands, and the work goes bravely on. They take far more pleasure in gathering from *forty to seventy-five* bushels of good solid, heavy corn per acre, than tripping over a gullied plantation after a few bushels of "nubbins." Though it be true that highland ponds at present are somewhat "precarious," it is also true that if we would use a little *sandy soil* for admixture, in most of cases, we would soon have a foundation that would stand the drouth and weather the storm. Of course, farmers will learn more about this after a little more experience. As for the swamps of the running streams in "Ol.'s" neighborhood, I never knew one of them when fairly tried, to prove in the least deficient. That highland pond that he has reference to is more certain where sand has washed in, but it generally produces well all over, unless the seasons prove such as to injure the upland crops of the neighborhood.

I have had strange feelings creep over me, while standing in that very pond, upon the margin of the "Alligator's Play Yard," and looking upon the fine corn and cotton growing in the monster's hall, and blooming around his very throne, that was once shut in by deep waters and dark woods. All praise to the "Irish ditcher"—"may he live a thousand years and his shadow never grow less," for,

The 'Gator's thunder is heard no more,  
The bullfrogs too, have ceased their roar,  
Croaking toads, ten thousand strong  
Have fled away in dread alarm.  
Corn, hay and rice, now have the rule,  
Where lately lay a stagnant pool;  
Chills and fevers, sickness, death,  
Are now dethroned by bright-eyed health.  
O, let the glorious work go on,  
In every swamp and highland pond,  
Until that same old "Irish nation"  
Proves its value to all creation.

Jefferson County, Ga.

DAVY CROCKET.

## IRON HOOPS FOR BINDING COTTON.

EDITORS SOUTHERN CULTIVATOR—We find in the July No. of this paper two articles upon the subject above introduced. One over the signature of "Dixit," denouncing their use—the other, "A Subscriber," recommending their adoption.

As the subject is full of interest to the cotton planter, we propose to submit a little testimony and a few thoughts of our own in its favor, thereby answering the call of "A Subscriber," and the objections urged by "Dixit."

The testimony is from the "*Vicksburg Whig*," a copy of which is herewith enclosed for publication, on the late invention of D. McComb, of Memphis, Tenn., which sets forth most of the advantages claimed for it.

It is known as "D. McComb's Iron Tie of Hook and Clasp," and the right to sell the same throughout this State, South Carolina, Florida, &c., is owned by a company in this place, who are now preparing them for sale for the growing crop.

A few specimen bales has been distributed over a portion of the above territory, and some on exhibition at the warehouses here, and are the admiration of all who see them.

A circular will soon be issued by this Company with certificates from most of the press owners in New Orleans, Mobile and Savannah, saying they will receive them on the same terms as rope banded cotton. Also certificates from sea Captains or owners of vessels, Insurance Companies, Cotton Brokers, &c., &c., recommending their general adoption by planters.

It is not to be presumed that the price of iron will be greatly augmented, as suggested by "Dixit," by this additional demand, since there has been no material change in the price of the article for many years, notwithstanding the heavy and increasing demand for Rail Roads only. The ties being painted with an anti-corrosive substance when prepared for sale, cannot rust, and will still be valuable as hoop iron, even after getting into spinners' hands.

If they are universally adopted, rope will be neglected—hence Kentucky bagging will be greatly reduced in price, and perhaps will supply the "India" altogether, which for the last few years has been very light and inferior.

We approve of "Dixit's" suggestion as to the weight of bales, 450 to 500 lbs. By adopting the former weight and "Iron Tie," we doubt if Captains of vessels would have them compressed, while planters would save much in the item of mending.

Columbus, Ga., August 1857.

A PLANTER.

**A NEW INVENTION.**—Some years since, hoop-iron was proposed as a substitute for rope in baling cotton, and, to some extent, it was brought into use; but in consequence of the difficulty in adjusting the rivets and the time lost in securing them, most persons abandoned the use of iron and returned to the rope. We were shown yesterday a new invention for fastening the bands, which obviates all objections, and can be done by any one who has eyes and hands, in an instant—much sooner than a rope can be tied. The fastening is made by bending over each end of the strap, so as to form two hooks, and when one is placed over the other, a sliding clasp is placed over them which confines them immovably. This simple contrivance is the invention of David McComb, of cotton press celebrity, and by a telegraphic dispatch received yesterday from Washington, we learn that he has obtained a patent for it.

The advantages of using hoop iron for baling cotton are, with Mr. McCombs fastenings, obvious enough.

First, time is saved, as the straps can be put in and fastened more rapidly than ropes can be tied.

Second, the straps will hold the bale to within two inches of the size that the press makes it, while ropes stretch incontinently.

Third, in compression for shipment, the straps can be more readily reclassified than ropes can be tied, and they will hold the compressed bale to its size, while with the rope-ties it expands twenty-five to thirty per cent. after it leaves the press. This will make a gain of space to shippers that is important. To illustrate—A ship that has stowage for 4,000 bales, tied with ropes, can make room for 5,000 bales with iron straps.

Fourth, the weight of the straps to each bale is about eight and one half to nine pounds, and can be furnished this year already painted, with hooks and clasps, at about two cents per pound less than rope; of itself a very considerable item to the planting interest.

Finally, the iron hoops are a protection against fire, for though it may burn some on the outside, a bale of cotton cannot readily burn up until the ties are broken and the air allowed to get to the mass of cotton.

#### ROCK IN CONCRETE WALLS.

**EDITORS SOUTHERN CULTIVATOR**—In the May number is an article by "D. R.," upon the subject of Concrete or Artificial Rock Houses. Please inform me if the large rock should be square edged or will they do of any shape or form? Is the large rock of material advantage other than to expedite or more rapidly advance the building up of the wall? W.

*Gainestown, Ala., May, 1857.*

[The heavy rocks may be of any form—the more angular and irregular, the better; as such shapes "bind" more closely. The large rock serve a two-fold purpose; they make a more solid and firm wall, and greatly expedite the work. "All sorts" of good hard rock, of every shape and size, may be used, taking care to pour the mortar and work it in closely around them. Such a wall, when properly made, hardens with age and defies the ravages of time.—D. R.]

**PRESERVED CARROTS.**—*Editors Southern Cultivator*—Take one pound of carrots, one pound sugar, and four lemons. Boil the carrots separately, and cut them in small pieces of an inch long, and a quarter of an inch thick; pare the lemons very thin, and boil the peels thoroughly, and cut them like the carrots; boil your syrup, and pour over the carrots, and put in the juice of the lemons; boil the syrup over next day until quite thick, and after you have flavored it with the essence of lemon, pour it over the carrots again.

R. N.

#### From Dwight's Journal of Music. THE PREACHING OF THE TREES.

FROM THE GERMAN OF GRUEN.

At midnight hour, when silence reigns,  
Through all the woodland spaces,  
Begin the bushes and the trees  
To wave and whisper in the breeze,  
All talking in their places.

The Rosebush flames with looks of joy  
And perfume breathes in glowing:  
"A Rose's life is quickly past!  
Then let me while my time shall last,  
Be richly, gaily, blowing!"

The Aspen whispers, "Sunken day?  
Not me thy glare deceiveth!  
Thy sunbeam is a deadly dart,  
That quivers in the Rose's heart—  
My shuddering soul it grieveth!"

The slender Poplar speaks, and seems  
To stretch her green arms higher;  
Up yonder, life's pure river flows,  
So sweetly murmurs, brightly flows,  
To that I still aspire!"

The Willow looks to earth and speaks:  
"My arm to enfold thee yearneth;  
I let my hair float down to thee:  
Entwine therein thy flowers for me,  
As mother her child adorneth!"

And next the wealthy Plum-tree sighs:  
"Alas! my treasures crush me!  
This load with which my shoulders groan,  
Take off—it is not mine alone;  
By robbing, you refresh me!"

The Fir-tree speaks in cheerful mood:  
"A blossom bore I never;  
But steadiness is all my store;  
In summer's heat, in winter's roar,  
I keep my green forever!"

The proud and lofty Oak-tree speaks;  
"God's thunder-bolts confound me!  
And yet no storm can bow me down,  
Strength is my stem and strength my crown;  
Ye weak ones gather round me!"

The Ivy vine kept close to him,  
Her tendrils round him flinging:  
"He who no strength has of his own,  
Or loves not well to stand alone,  
May to a friend be clinging."

Much else, now half forgot, they said;  
And still to me came creeping,  
Low whispered words, upon the air,  
While by the grave alone stood there  
The Cypress mutely weeping.

O might they reach one human heart,  
These tender accents creeping,  
What wonder if they do not reach?  
The trees by starlight only preach,  
When we must needs be sleeping.

"THINK OF IT."—Do not live in dark rooms. Light fades the carpet, but it feeds the flower. No living animal or vegetable can enjoy health in darkness. Light is almost as necessary as air, and a brown tan is far preferable, even as matter of beauty, to a sickly paleness of complexion. Mark this advice, all ye young ladies who are fond of living in "dark parlors."

## SORGHO SACCCHAROMETERS.

EDITORS SOUTHERN CULTIVATOR—I take the liberty of sending you, by mail, one of my Sorgho Saccharometers, the object of which is to determine with ease and certainty the proper degree of concentration for the Sorgho (or Chinese Sugar Cane) Syrup.

The juice is placed in the kettle, clarified according to directions, (or in the usual way), and boiled until the operator thinks it nearly done. The saccharometer is to be immersed, for a few minutes, in a pan of warm water, and then placed in the syrup. The fire is to be moderated until active boiling ceases for a moment, and the surface cleared of scum, when the depth of the instrument may be observed upon the stem. If it sinks greatly below the syrup mark, remove it; boil on for a while longer, and repeat the test. When the stem shall not sink more than, say, one inch below the syrup mark, allow the instrument to remain, and by a gentle fire simmer the syrup until the precise point is reached. On the other hand: if the boiling shall have been carried too far, slowly add water, (or juice, as you may prefer,) until the instrument shows a proper density. It will be borne in mind that the saccharometer sinks *too low* in a *thin* syrup, and rises *too high* in one *too thick*.

The advantages of the instrument are: 1st, The certainty of its indications. Being unaffected by weather; and every one having been tested and proved as to its correctness.

2d, Ease and facility in its application: used, as it is, in the kettle, and while the syrup is nearly boiling hot—thus requiring little or no interruption in the evaporating process.

3d, Its simplicity, having but one point of graduation. It would seem that a boy, of twelve years of age, could use it with as much certainty, as to the result, as I could myself.

I think you will agree with me in the opinion that my instrument greatly simplifies the process of syrup boiling, and enables every farmer to carry on the operation with ease and certainty as to its results.

Should an opportunity offer, I would be pleased to have you test the instrument during the syrup season.

Respectfully,

ROBERT BATTEY.

Rome, Ga., June, 1857.

[We thank Dr. BATTEY for the very ingenious, though simple, instrument, which he has sent us, and would recommend it to the attention of all who may desire to make syrup from the Chinese cane the present season. It will save a world of trouble and disappointment. Dr. B. has been identified with the Sorgho and its products from its first introduction among us, and the public are much indebted to his researches for valuable information.—Eds.]

## OSIER OR BASKET-WILLOW IN TEXAS.

EDITORS SOUTHERN CULTIVATOR—My object in addressing you is to elicit information in regard to the Osier Willow.

I wish to know if it was planted upon land liable to occasional overflow what injury would ensue? For I think we have the greatest willow fields in the world upon our Red river; provided, an occasional overflow will not injure it. The common willow is indigenous, and flourishes remarkably well—the soil being entirely alluvial, and producing, when in a state of cultivation, enormous crops of corn and cotton. Would the osier willow be likely to do as well as the common willow in an overflowed condition?

If you think the lands I speak of would be favorable to the cultivation, then upon your opinion I will base my

future operations, and would enjoin upon you to secure for me some of the cuttings, to be shipped in time for planting next winter.

It may be that I have not been concise enough in the description of our lands, and, also, from my entire ignorance of the plant and its cultivation, there is much information I may not have asked for; which may readily suggest itself to your mind; for such information and for information upon the points above referred to, I would very respectfully ask your opinion. While I would at the same time ask pardon for trespassing upon your time, but I think you will excuse me when I say you are the only acquaintance I have that can inform me.

Our acquaintance is limited, but to me, in one respect, very pleasant, viz: through the *Cultivator*.

Allow me to subscribe myself,

A FRIEND.

P. S.—What is the machine for peeling worth?—and where can it be procured?

Boston, Bowie County, Texas, May, 1857.

[The lands of our subscriber are exactly the thing for the growth of the Osier, and if he will cultivate the best Basket and Hoop Pole varieties, he can undoubtedly sell them to a great profit in New Orleans. The Basket varieties may be cut the first year, but the larger kinds for Hoop Poles must be allowed to stand two years to attain the proper size. We believe that forty thousand of these hoop poles may be cut from an acre of good, rich, bottom land, every two years, and the culture and management (which has been heretofore described in the *Cultivator*), is very simple. We will ascertain the price of Mr. COLBY'S Peeling Machine, and will write our friend.—EDITORS.]

## PORTABLE SAW MILLS.

EDITORS SOUTHERN CULTIVATOR—"A Subscriber," in the July No. of the *Cultivator*, wishes to know something about the cheapest and best Portable Saw Mill. There was a Yankee here at the time of "Old Buck's" inauguration that could have "fixed him out" exactly. He had a Mill of his own make put up, on the common, near the Capitol, which he worked with two horses; and when I saw the Mill at work, he had on a log 18 inches thick and about 16 feet long, and the two horses sawed it through at the rate of one foot per minute, timed by my watch,\* and he said that after he was done sawing all the timber in a neighborhood, the same two horses could haul the whole concern, complete, to any other neighborhood at one load. The price for the Mill complete was \$300.

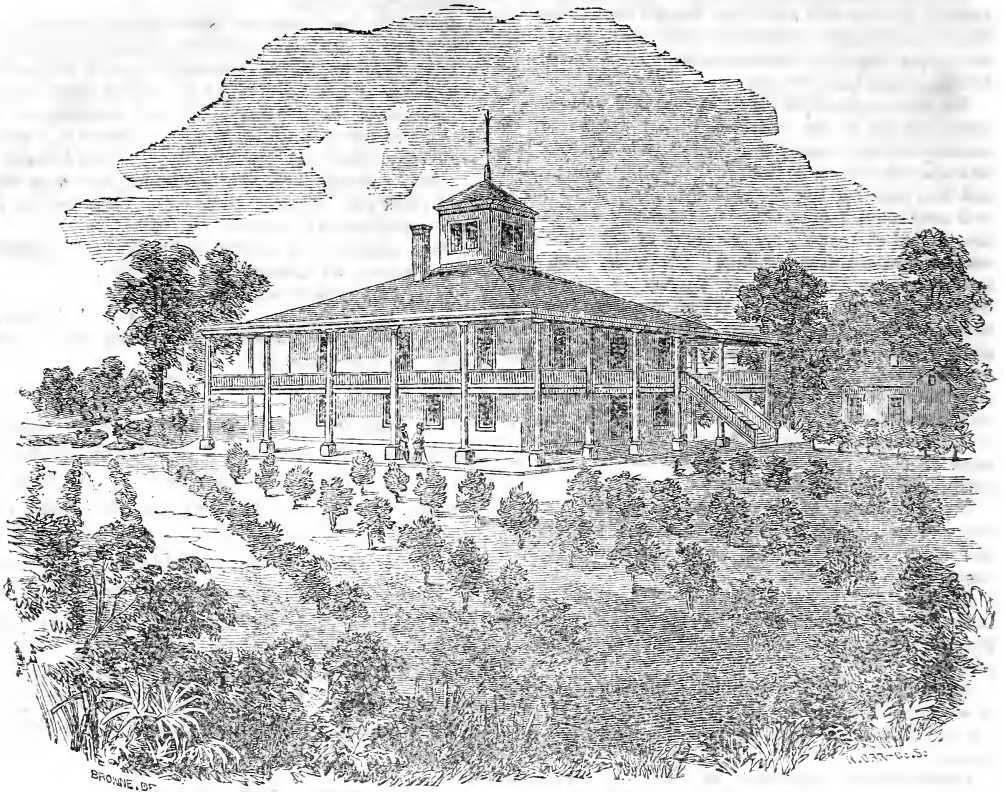
Respectfully, &c.,

M. GARRETT.

Washington, D. C. June, 1857.

STRIPED BUGS.—"Dr. Hull, of Newburg, raised a large crop of melons by the following process: 'Bugs were completely expelled by watering the plants daily with a strong decoction of quassia, made by pouring four gallons of boiling water on four pounds of quassia, in a barrel, and, after twelve hours, filling the barrel with water. The intolerable squash or pumpkin bug was thoroughly driven off by a decoction of double strength, containing a pound of glue to ten gallons, to make it adhere. The result was, a product of sixteen hundred superb melons, on less than one-sixth of an acre of ground.'—*Horticulturist*.

\* I think four horses could nearly have doubled the task in the same time.



### SOUTHERN COUNTRY HOUSES.

"FRUITLAND"—THE RESIDENCE OF D. REDMOND, NEAR AUGUSTA, GA.

THE most obvious requirements of a Southern country house, are: *ample space; convenient arrangement of rooms; shade, and ventilation.* To these should be added, if possible, a reasonable share of architectural style—an outward appearance in keeping and harmony with the interior and surrounding scenery. Mainly agreeing with Bacon, however, that "houses are built to *live in*, not to *look at*," we are inclined to prefer the comfortable and convenient, in all cases, to the merely showy or ornamental. It was, therefore, after a very careful study of the requirements of our climate, and a familiarity with the various popular works on architecture, that the writer adopted the plan here given, which he trusts will be found to possess some commendable features, and to admit of such modifications as will adapt it to the tastes and necessities of others.

The *site* of this house is a dry and gravelly knoll, in the orchard, at "Fruitland." It is on the dividing ridge between Rae's Creek and the Savannah River; and from the peculiar formation of the locality, commands a very beautiful prospect of the city of Augusta, the opposite hills of South Carolina, and the surrounding country, for many miles. The walls are of concrete, or artificial rock—a material which possesses many and striking advantages over the *perishable* and *combustible* wood generally used for outside walls, and, if properly put up, is superior to brick in many respects. The general method of constructing concrete walls, and much other information of value, may be found in an excellent little volume entitled "*A Home for All*," published by Messrs. FOWLER & WELLS, 308 Broadway, New York. And the particu-

lar method which we adopted will be found detailed below.

By reference to the elevation and accompanying plans, it will be seen that the house is a nearly square structure of two-stories, fifty by fifty-five feet, entirely surrounded and shielded from sun and storm, by an ample verandah, ten feet wide. The lower story, or basement, contains the dining-room, pantry, store-room, office, bathing-room, fruit-room, and ice-house—in short, all the *working-rooms*, or apartments for every day practical use; while the second-story contains the library, parlor, bedrooms, closets, etc. Two large halls, fifty-three by ten feet, run directly through the building, securing perfect ventilation, especially to the second-story, where transoms, lights, over each door and opposite the outer windows, admit the freest possible circulation of pure air. The basement floor is raised several inches above the surface, filled in with pounded rock and gravel, and laid in cement, which adheres firmly to the walls, thus affording perfect security against fire, dampness, and the depredations of rats and other vermin. By a very simple arrangement, the stairs leading from the basement to the second floor, and thence to the observatory or cupola, are removed from their usual position in the halls, leaving the latter entirely free and unobstructed. All other details are sufficiently obvious in the plan. The lower division walls, separating the hall from the dining room, office, etc., are built of concrete, one foot thick, but all the partitions, above and below, are lathed and plastered. Two *inside* chimneys give us six good fire-places and flues for stove-pipes, thus confining all the heat where it is wanted, and avoiding the unsightliness of *outside* chimneys.

## MODE OF BUILDING A CONCRETE HOUSE.

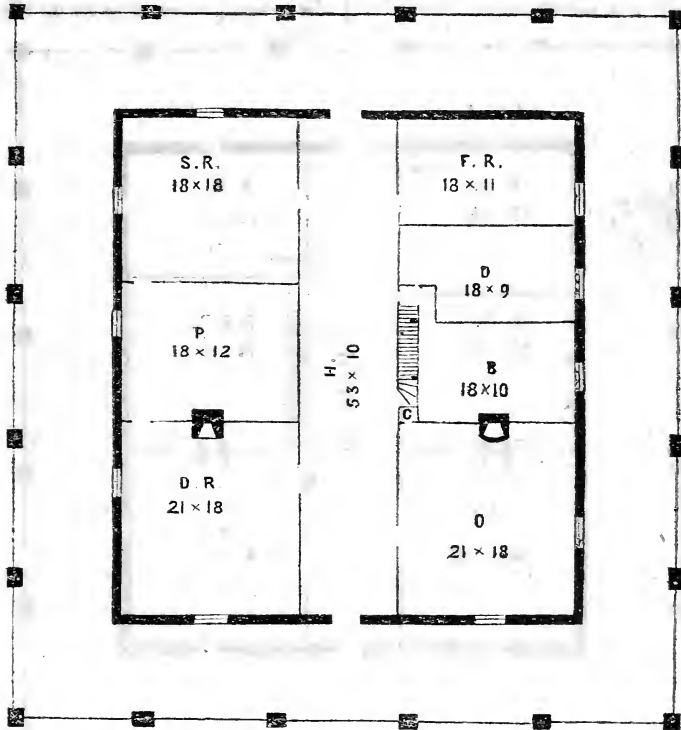
[The following description of the method of constructing Concrete Walls, is repeated, with a few slight alterations, from our May number.]

1st. LOCATION, &c.—Select, if possible, a high and dry situation, and get all heavy materials, such as rock, sand, lime, gravel, &c., on the spot as early in the season as possible; say by the first or middle of May, in order that you may avail yourself of the long, warm days of summer, for successfully carrying on your operations.

2d. MATERIALS.—The proper materials are *Lime*, *Sand*, coarse and fine *Gravel*, large and small *Rock*, and *Water*. The lime may be from any good, pure limestone, that will slack readily and “set” or harden thoroughly, when dry;\* the sand should be sharp, and as free from clay, loam, and other earthy matter as possible; and the Gravel and Rock may be of any size, from that of a boy’s marble, up

repeatedly, until it is solid and compact. A layer of hydraulic cement mortar, two inches thick, spread evenly over the bottom of the trenches thus compacted, gives you a solid foundation to start on, as soon as it “sets,” or becomes hard. If you intend carrying up inside division walls of concrete, the foundation for these should be laid in the same way. Good hydraulic cement will take at least three parts of sharp sand; but it must be used as soon as mixed, or it will “set,” and become useless.

4th. FRAME AND BOXING.—Cut common 3 × 4 scantling two feet longer than you wish your highest story to be; set up a double row with the lower end resting firmly upon the edge of the hardened cement in the bottom of the trench; range them true and “plumb” them; letting them stand three or four inches farther apart than you desire your wall to be in thickness; then nail cleats across, above and below, to keep them in place, adding also “stays” or “braces,” driven slantingly into the ground,



[BASEMENT, OR LOWER STORY.]

DESCRIPTION.—H., Hall, 53x10 feet. D. R., Dining Room, 21x18. P., Pantry, 18x12, adjoining the Dining Room. S. R., Store Room, 18x18, next to Pantry. O., Office. B., Bath Room. D., Dairy, 18x9, for milk, ice, &c. F. R., Fruit Room, 13x11, for the ripening of Pears, keeping of winter fruits, &c. When not used for the intended purpose, the latter room may serve as a general lumber room, or a servant’s bed-room.]

to 18 inches or two feet square, according to the thickness of your walls.

3d. FOUNDATION.—Having fixed on your PLAN, lay off the foundation, and commence by digging a trench two feet wide and two feet deep, the area or full size of your outer walls. With a heavy piece of hard wood, squared or rounded at the lower end, pound or ram down the earth in the bottom of this trench, going over it

and nailed to the scantling at the upper end. Your skeleton or frame-work of scantling, being all set up and “stayed” firm and “plumb,” proceed to arrange your “boxing” for holding the concrete, and keeping the walls in shape. This is done by cutting sound inch or 1½ inch plank of 10 inches or a foot wide, so to fit inside of the two rows of scantling and form two sides of a box. Movable pieces, the thickness of the wall are dropped in between, at intervals, to keep the box of the proper width, and wedges driven in between the boxing and the scantling, on the outside, prevent spreading by the pressure of the concrete. Wooden “clamps,” to slip down, here and there, over the upper edges of the boxing, will also be found very serviceable.

\*The Lime used by us is of a peculiar quality, known as “Hydraulic Lime,”—not the Cement, which is, also, often called “Hydraulic.” It may be obtained from the quarry of Rev C. W. Howard, Kingston, Cass county, Ga. But good Common Lime will answer, where the “Hydraulic” cannot be had.

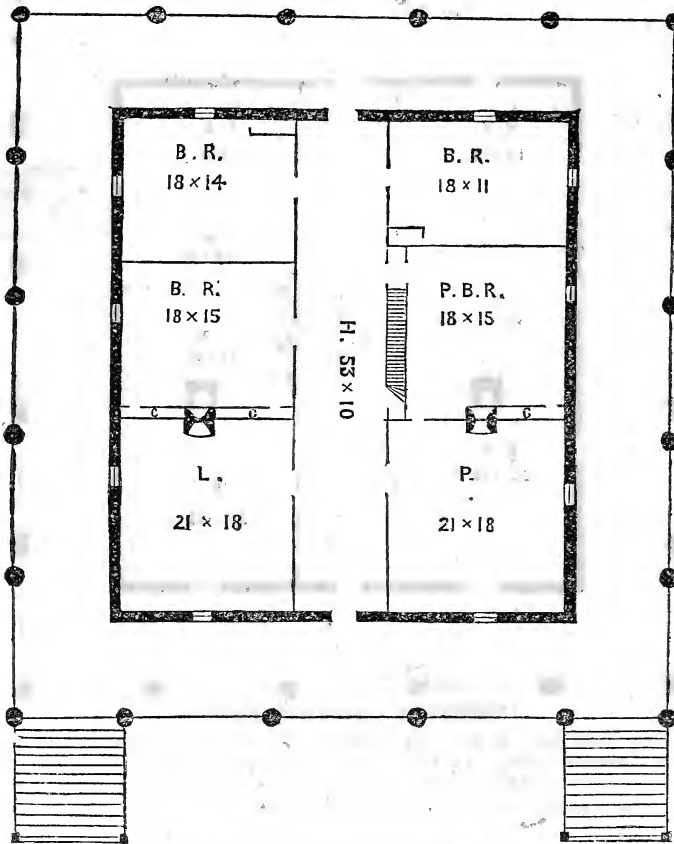
5th. MIXING CONCRETE, LAYING UP, &c.—It will be



well to have at least four large mortar beds, one on each side of the house, made of strong plank, in the usual way. These should be surrounded by casks of water (oil casks cut in two, are excellent); piles of rock, sand, gravel, &c, —the lime of course, to be kept under cover, and used as wanted. Slack up your lime until it forms a thin, smooth creamy mass, then add four or five parts of clean, sharp sand, stirring and mixing constantly, and using water enough to bring the whole, when thoroughly mingled, to the consistency of a thick batter. Into this "batter," mix coarse and fine gravel (that has previously been screened and well dampened) until the mass is thick enough to be lifted on a common shovel. [The proper and careful mixing of the sand with the lime, and the gravel with the mortar afterwards, is very important, and should only be entrusted to your most careful hands.] Having one or two "beds," full of this mixture, you are ready to begin your wall. Wheel the mortar to the foundation in common rail-road wheelbarrows, letting the

as before, and so on, until your boxing all around is full. You have now 10 inches or a foot of wall, all around, built; and if the lime is good and the weather dry, it will be hard enough in 24 hours, to raise your boxing another tier. This is readily done by knocking out the wedges between the plank and the scantling, raising up the plank and sustaining it in place by "cleats" nailed on the scantling. In raising the boxing, begin at the point where you commenced laying up the day previous, as that portion of the wall will, of course, be the hardest. It is not necessary to raise *all* the boxing at once, or go entirely around the wall in a day. A foot or yard of the wall can be completed at a time, if advisable; but if the complete round can be made, so much the better. Planks to cover up with, in case of a sudden shower, or when a storm is apprehended, should be provided, and placed within reach.

6th. GENERAL DETAILS, FLOORS, WINDOWS, DOORS, &c. —We prefer a cement floor for the basement, on many ac-



[MAIN FLOOR—SECOND STORY.]

DESCRIPTION.—H., Hall, 53x10 feet. L., Library, 21x18. B. R., B. R., B. R., three Bed-Rooms, respectively 18x15, 18x14; and 18x11. P., Parlor, 21x18. P. B. R., Parlor Bed-Room, 18x15. c, c, c, Closets.]

common hands shovel it into the bottom of the trenches, while the superintendant or "boss" workman spreads it evenly with his trowel. When the bottom layer of mortar, 3 inches thick, is laid in, wheel large and small rock (previously sprinkled with water) to the wall, and press it into the soft mortar at every available point, leaving a small space between each piece of rock, and working the soft mortar against the plank boxing, to preserve a smooth surface on the wall. When you can press no more rock into the mortar, pour another layer of the latter over and through the rock, then add a layer of rock

counts; but those who desire a wooden floor, should leave air-holes in the outer walls, under the lower floor, six inches above the surface. This may be easily done, by inserting wedge-shaped blocks or pins through the wall, to be knocked out afterwards. When you are ready to lay the floors, level up your walls and run one course of brick all around, the thickness of the wall, for the ends of the flooring-joists to rest on—filling in around these ends with concrete, when they are fixed in their proper places. The door and window frames should be made of 3-inch yellow pine, the full thickness or width of

the walls, and may be set up and built around, like those in a brick house, as the wall progresses. A piece of common inch plank, "cut in" all around them, to prevent the actual contact of the damp mortar, will keep them, in a great measure, from warping. Where base-boards are needed, blocks of scantling may be built in flush with the inner surface of the wall, at the proper distances apart. We cannot think of any other particulars in which a concrete house differs from one built of brick; and we need not, therefore, enter into more minute details, at present.

7th. ADVANTAGES, COMPARATIVE COST, &c.—A house of this description is admirably adapted to our Southern climate. Being a non-conductor, it is cool in summer and warm in winter—the walls do not absorb moisture from the atmosphere, like a brick house—with a cement floor, it is proof against every description of vermin—it is not near as liable to burn and decay as a wooden house, its walls becoming harder and harder, with age, until it is almost a solid mass of rock; and it possesses an *enduring* and *permanent* character, superior in many respects, to either wood or brick. Its most striking advantages over brick are, that it can be built in many locations where brick cannot be readily obtained—that it costs much less than brick, in almost all cases—and that the erection of the walls only needs the superintendence of one good mechanic, (mason or bricklayer) all the heavy labor being done by common field hands. The walls of our dwelling at "Fruitland," enclose an area of over 50 feet square—they are 20 feet high; 18 inches thick in the basement [9 ft.] and 12 inches in the upper story [11 ft.] with two lower partition walls, 9 feet high, 1 foot thick, and 52 feet long each. Lime cost 50 cents per bushel at the Railroad, and we hauled it nearly 3 miles; the large rock was quarried and hauled from Rae's Creek, a mile off; the water for making mortar, hauled in a cask, over a quarter of a mile; the process of putting up such walls was entirely new to our workman and ourselves; and yet, in the face of all these difficulties, we completed the walls at *one-third* less expense than any brick contractor in Augusta would undertake to do them for. We can safely say, therefore, that, wherever lime is not worth more than 20 or 25 cents per bushel, and rock, sand and water are convenient, a house of this description can be built nearly as cheap as wood, and at half the cost of brick; and, we think it possesses sufficient advantages to induce a more extended trial in various sections of the country.

D. R.

#### BEES---TANSY TAKES AWAY THEIR PUG-nacity.

EDITORS SOUTHERN CULTIVATOR—Seeing an article in the July number of your valuable periodical upon Bees, I deem it not altogether *mal a propos* to communicate a fact which may be of benefit and interest to Bee raisers, respecting the mode of preventing being stung by them in hiving, etc.

This aristocratic insect is certainly worthy of man's study, and its peculiarities worth bringing to the notice of every intelligent individual. The article alluded to is a communication from Mr. McGehee; which is well-written and informing, yet I wish to improve upon his method by adopting a different plan to keep from being stung, notwithstanding Mr. McGehee is not "stung more than once in 20 hives."

There is a perennial plant cultivated in our gardens, and in some places naturalized, though indigenous to Europe, called Tansy—*Tanacetum Vulgare*—possessing valuable medicinal properties; aside from which it has, I presume, from its strong peculiar odor and warm, bitter, aromatic taste, the power of effectually preventing Bees from stinging. The plant is taken green and rubbed upon parts exposed, i. e., the face and hands, and I presume

that a strong decoction of the dried leaves would answer the same purpose.

I've been told that Feenel—*Feoniculum*—will also prevent bees from stinging parts upon which it is rubbed, but have never seen it tested.

This may be old to you, to Mr. McGehee and to others, but be assured it is my wish, in bringing to your notice, to be of benefit to Bee raisers, and should it prove worthy of insertion I shall be much gratified.

Respectfully yours, GOODWIN NIXON, M. D.  
Lowndesboro, Ala., June, 1857.

#### A PROPOSITION TO TEST THE GRASSES.

EDITORS SOUTHERN CULTIVATOR—I have now on trial a few of the grasses and am so well pleased that I am inclined to make a very full trial, and make the proposal.

If Southern planters who have grass that they deem worthy of introducing to their brother planters, will furnish me seed of a small parcel of each, say enough for a fair stand on one-eighth to one-fourth of an acre, I will put land in good condition and sow down in October next. I ask this favor not alone for myself, but that I may benefit the cause. I have been so kindly favored by the spirited planters North and South, that I feel I have only to name this. I also ask of Northern and Western farmers, or seedmen to supply me with all the varieties known to the trade, so that I may have a full trial. It will be a trifling cost, and the expense of trial not much, but far exceeding cost of seed. I have written off to New York and Boston to know if I can get some 30 varieties known well in Europe, and many at the North and East, but none used in the South.

I have a lot on which I shall test for the second year all the varieties of the Pea that I have been able to get, which will be cultivated, and a good preparation for the Grasses in October.

The mass of planters South believe they are *called* to kill grass, and any one who presumes to advocate grass culture is regarded as either decidedly soft or an enemy. But when we see the scarcity, no doubt, *scarcity* of meat, and the high price of leather; we should now be willing to use some exertion to supply the demand. Not only this, but I contend it is bad policy to rely upon the corn field for all food.

I have, this year, cut Lucerne, sent me under name of Alfalfa, already three times, this 19th June; each cutting when in bloom and an average of 18 inches high. This grass (clover) I have had in cultivation occasionally for nearly twenty years, and know that on rich, deep land it will pay better than any other crop I know of, it being so early in the Spring. Bermuda, perhaps, suits all lands best, though it is slow to start in the Spring, if cold.

The South, to be true to itself, ought not to rely upon the staple crops of Tobacco, Rice, Cotton and Sugar, but so vary their husbandry as to be able to supply necessary wants, and thus keep in check the disposition to speculate upon necessities.

Would it not be a worthy object for each Agricultural Society to offer premiums for Grasses, largest product, and for the most nutritious? It seems to me that such objects come under the watchful care of all such Associations. The cost is too much for an individual, and besides there should be enough public spirit to induce action and not expect the burden to rest on one.

I have now in cultivation some ten varieties and may be able to give some slight hint ere the close of the year.

I beg the aid of all, and will hope to make it advantageous. Address

M. W. PHILIPS, *Edwards, Miss.*

Will Agricultural journals please notice. Editors friendly hereto can secure the experiment.

## RICE HULLING MACHINES.

A New York City exchange paper says: "A Patent Rice Huller, the invention of a Mr. Barnes, has recently been placed in the mills of Messrs. White and Rundle, at Brewster's Station, Putnam county, in this State. A correspondent, writing to us from that place, speaks highly of this newly invented huller. He says: It can be adapted to other grain than rice—as buckwheat, rye, wheat, oats, etc. The Huller is capable of turning out from twenty-five to thirty bushels of grain per hour. It can be driven with less than two horse-power, and makes at ordinary speed over two hundred revolutions per minute, clearing it thoroughly of all smut or taint—the great desideratum having been gained in it of working from point to point, and from the largest diameter. The best proof that can be given of the success of this invention is, that the mill now running the machine monopolizes the business within a section of twenty miles of its locality, the adjoining mills being closed. The manner of running the Huller is simple, and can be understood by a child. The hopper is replenished as in a coffee mill, and as it passes downward the grain is separated from chaff, bran, etc., and at once made ready for the stones, free from any foreign substance whatever. The grain, when bolted, far surpasses in whiteness and purity any that is hulled by other processes. The flour is several shades whiter than any our correspondent has ever seen, the rye being as white as wheaten flour. Although this machine is working without the modern improvements usually found in mills (the one in which it is being about one hundred years old,) it has proved itself superior to every other now in use. Upon inquiry, the owners of the mill informed our correspondent that it saved above any other smut from three to five pounds of flour per bushel. This is an important saving. We are given to understand that the attention of millers throughout the country is already attracted to this useful invention of Mr. Barnes, who has associated with him in their manufacture Col. Smeltzer, of this city, and that rights to the value of one hundred thousand dollars have already been disposed of. The machine was patented in 1855, but has not been practically tested until within the past year. The cause of agricultural invention will undoubtedly be much benefited by the general adoption of this useful invention."

## A CHEAP AND GOOD ROOFING.

The editor of the *Valley Farmer* gives us the following, which strikes us being well worthy of a trial:

The cheapest roof that we are acquainted with, and one that we prefer to shingles, particularly as many shingles are now made, is covered with cloth. We know from an experience of more than fifteen years, that when properly made they are not only cheap but good.

For the foundation for the cloth a substantial covering of boards should be laid, giving the roof any desired pitch, sufficient to run off the water. Cloth known under the name of *burlaps*, which is made of hemp, is the best for this purpose. It is woven from one to six yards wide, and is much used for oil floor cloths. That which is one yard and a quarter wide, is usually bought for about fourteen cents per yard, but the widest is the best for roofing. It should be spread lightly over the roof, and lapped at the seams, and well tacked down with small pieces of cloth under the heads of the tacks; a few should also be put in the middle, to secure it from the wind, until painted and finished. It should now receive a thick coat of paint; spruce yellow, or what is termed mineral or fire-proof paint, costing but a few cents per pound, with linseed oil, makes a cheap, substantial paint. After the first coat of paint is laid on, small wood strips, half an inch square, running up and down the roof, should be nailed on twelve

or sixteen inches apart. Slim nails, with small neat heads, should be selected for the wood strips. Then one or more coats of paint should be applied. If the house is strong and the boards for the roof are well laid on, such a roof will out last the common shingle roof.

We have for some time intended giving a plan for building not only a cheap but good, substantial house, that will be warm in winter and cool in summer, with this kind of roof. We will take the subject up at a future time.

## DRAINING LOW LANDS.

EDITORS SOUTHERN CULTIVATOR—Being a subscriber and an attentive reader of your valuable paper, during this year, I take the liberty of addressing you this, desiring information as to the reclaiming of low lands.

I have a very extensive bottom on a large creek; on one side there are pretty high banks, but on the other the bank is not more than three feet high—the consequence is, that whenever the stream gets swollen above that height, the bottom is flooded, and thereby rendered valueless. If I could keep the water off it, it would be good for fifty bushels of corn per acre. Now I had thought that if I could build an embankment, or levee, some five or six feet high, I could keep the water off. On this subject I want information. Will you be so good, or, perhaps, some one of your numerous correspondents who have had some experience in such things, could, enlighten me in regard to it; or it may be you have published something on this subject previous to this year; at any rate, I would like an article on this subject in your paper.

I wish to know how to construct an embankment. In the first place: Would it answer the purpose?—and if so, how should it be made?—whether there should be any timbers used?—what distance from the natural bank of the stream should there be a ditch or ditches made to obtain the dirt? and where?—what should be the height and breadth of the embankment relatively?—at what time of year made, and how to prevent it from being washed away during the construction?—and, how to prevent this afterwards, etc., etc.

I would like the above queries answered, and anything which would be necessary in the way of instruction in relation to making the embankment, particularly as regards the cost—whether it would pay or not.

Very respectfully, yours, J. M. STRONG.  
White Hall, N. C., June, 1857.

[Send to C. M. SAXTON & Co., 140 Fulton street, New York, and get a little book called "Munn's Practical Land Drainer"—price 75 cents. It contains precisely the information you desire, and much more of value. Let our subscribers, also, give Mr. STRONG all the information in their power.—EDITORS.]

A BEAUTIFUL EXTRACT.—There lies in the depths of every heart that dream of our youth, and the chastened wish of manhood, which neither cares nor honors can ever extinguish, the hope of one day resting from the pursuits which absorb us, of interposing between our old age and the tomb, some tranquil interval of reflection, when with feelings not subdued but softened, with passion not exhausted but mellowed, we may look calmly on the past without regret, and on the future without apprehension. But in the tumult of the world, this vision forever recedes as we approach it; the passions which have agitated our life disturb our latest hours; and we go down to the tomb like the sun in the ocean, with no gentle and gradual source which gave it, but sullen in its beamless descent, with all its fiery glow, long after it has lost its power and its splendor.

## THE CUT WORM---BERMUDA GRASS.

EDITORS SOUTHERN CULTIVATOR—I see a great complaint throughout the planting States on account of the cut worms. The way I prevent their ravages in this latitude is this: I break up the land deep, using a turning plow, commencing after the first, second, or third killing frosts, and turn all land over by the first of February, the freezing somehow destroys the worms in the ground before they mature; but I suppose this preventative would not answer in a latitude where the weather is not cold enough to freeze the ground.

How is the Bermuda grass propagated, and how and when planted?—and of whom can it be obtained, and at what price? Any information on this subject will be thankfully received and cheerfully reciprocated.

Jasper, Tenn., June, 1857.

W. T.

[The Bermuda grass is propagated by clumps of sod containing the roots, or by the roots themselves. It may be obtained anywhere in middle Georgia, and we do not think it has ever been made an article of trade. Write to Colonel JOHN CUNNINGHAM, Greensboro', Ga. The fall or early spring is a good time to set these sods or roots. Let the ground be manured, deeply broken up, and well pulverized; and after the grass once gets started, it will need no further attention. It is excellent both for pasture and hay, but cotton planters are generally afraid of its inroads and give it no quarter. It is not very difficult to control or destroy, however, when properly managed.—EDITORS.]

## AGRICULTURAL STATE FAIRS, FOR 1857.

Georgia, Atlanta,.....	Oct. 20, 24.
Alabama, Montgomery,.....	Oct. 27, 30.
South Carolina, Columbia,.....	Nov. 10, 13.
Kentucky, Henderson,.....	October 12, 16.
East Tennessee, Knoxville,.....	October 20, 23.
West Tennessee, Jackson,.....	October 27, 30.
Virginia, ———,.....	October 28, 31.
Ohio, Cincinnati,.....	Sept. 15, 18.
Canada East, Montreal,.....	September 16, 18.
Illinois, Peoria,.....	September 21, 26.
Pennsylvania, ———,.....	Sept. 29, to Oct. 2.
Vermont, Montpelier,.....	Sept. 30, to Oct. 2.
Wisconsin, Janesville,.....	Sept. 29, to Oct. 2.
Indiana, Indianapolis,.....	October 4, 10.
New York, Buffalo,.....	October 6, 9.
Iowa, Muscatine,.....	October 6, 9.
United States, Louisville, Ky.,.....	September 1, 6.
Michigan, Detroit.....	September
New Hampshire, Concord,.....	October 7, 9.
Connecticut, Bridgeport,.....	October 13, 16.
Massachusetts, Boston,.....	October 20, 24.
Maryland, Baltimore,.....	October 21, 25.

THE TWO SEXES.—When a rakish youth goes astray, friends gather round him in order to restore him to the path of virtue. Gentleness and kindness are lavished upon him to win him back again to innocence and peace. No one would suspect that he had ever sinned. But when a poor confiding girl is betrayed, she receives the brand of society, and is henceforth driven from the ways of virtue. The betrayer is honored, respected and esteemed, but his ruined, heart-broken victim knows there is no peace for her this side of the grave. Society has no helping hand for her, no smile of peace, no voice of forgiveness. These are earthly moralities; they are unknown in heaven. There is deep wrong in them, and fearful are the consequences.

## THE EMPIRE OF COTTON.

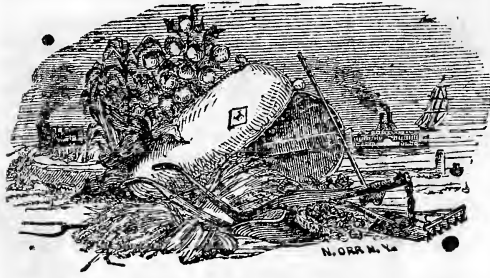
COTTON is the great "if,"—the potent peace maker and peace keeper. The *Day Book* truly says: "We believe no one conversant with the culture of cotton is ignorant of the fact that it cannot flourish to any extent in tropical climates annually subjected to the vicissitudes of what are called the dry and rainy seasons. In certain localities, indeed, the want of rain may be partially supplied by artificial irrigation; but we know of no expedient to guard against excessive rains, which are, in fact, more fatal to cotton than long continued drouth. Though cotton is cultivated to some extent in Egypt, Hindostan, and various districts in Asia and Africa, by means of irrigation, it would require a large portion of credulity to believe that three or four millions of bales could be furnished for exportation annually, by the aid of artificial irrigation alone. A great portion of this process must necessarily be applied to the production of food, which is an article of the first necessity; and in addition to this the industry of Asiatics would be but a poor dependence for a certain, regular and permanent supply of that, the interruption of which would be attended by such serious consequences. With respect to Algeria, the same obstacles present themselves, in the climate, where the dry and rainy seasons alternate, and where, in addition to this, the projected cotton growing region is exposed continually to the devastations of a race of barbarians whom neither defeat can discourage nor chastisement reclaim.

"The cotton growing region of the United States is peculiar both in soil and climate. Though the former is rather light, it is rich, most especially in the first years of cultivation, and though the latter is warm, it is never scorched into temporary barrenness by excessive heat or long continued drouth. There is no rainy or dry seasons lasting for months, but heat and moisture are diffused in harmonious proportion from the time of planting to that of gathering. During this whole period, with occasional exceptions, there comes neither a drouth nor a deluge, and hence the planter can calculate on his crop of cotton with as much certainty as any other product combining with these advantages the species of labor employed. We believe there is no other region of the earth that can, by any possibility, be brought into successful competition with a portion of the Southern States, in the production of what is now the great staple of the world."

As far as human experience goes, all this is true; and the cotton planter may rest assured, within at least his day and generation, that no harm can come to his fields, unless it be the worm and bad seasons, and his own improvidence. With a decent degree of thrift this Southern country ought to be within five years the wealthiest on the surface of the earth.—*Alabama Planter.*

A NEW COTTON GIN.—We witnessed yesterday the performance of a new Sea Island Cotton Gin, which has just been perfected and patented by James B. Mell, Esq., a native of this city. The advantage claimed by him are: 1st, A freedom from clogging, which we saw fully tested, by throwing several handfulls of the ginned cotton into the rollers, when it passed through without causing the slightest difficulty. 2d, Having cast-steel rollers no time is lost in putting in new ones, as they will last ten years, and not cost a cent for repairs. 3d, This gin will do nearly double the work of an ordinary gin. Mr. Mell is positive that he can gin six hundred pounds per day. 4th, The cotton comes from the gin just as it went in, minus the seed—the staple not injured a particle.

A good gin is much wanted by the planters of long staple cotton, and we think Mr. Mell has supplied it. We can see nothing to prevent its success, and as the cost will probably not exceed \$150, it will be in the power of every planter to get one.—*Savannah Republican.*



## The Southern Cultivator.

AUGUSTA, GA:

VOL. XV., NO. 8.....AUGUST, 1857.

### NEW ADVERTISEMENTS.

THE following new advertisements will be found of special interest to many of our readers:

New Work—Sorgho and Imphee.  
Illustrated Family Journals.  
Valuable Farm for Sale in Cherokee Georgia.  
Southern Planters' encourage Manufactures.  
Grape Culture!—Vineyards!!—Wine!!!  
Fresh Turnip Seed.  
Augusta Seed Store.  
Mississippi Fruit Trees.  
Saxton & Co.'s New Agricultural Books.  
Plantation in South-Western Georgia.  
First Class Family Journals.

### SOUTHERN AGRICULTURAL FAIRS.

THE Fair of the "Southern Central Agricultural Society," of Georgia, will be held at *Atlanta*, from the 20th to the 24th of October.

The South Carolina Society holds its Fair at *Columbia*, from the 10th to the 13th of November.

The Alabama State Society's Fair will be held at *Montgomery*, from the 27th to the 30th of October.

The Fair of the East Tennessee Society will be held at *Knoxville*, from the 20th to the 23d. of October; and that of West Tennessee, at *Jackson*, from the 27th to the 30th of the same month.

We have no positive information from North Carolina, Florida, Mississippi, Louisiana, Arkansas or Texas—though, we believe that Fairs are announced in several of these States. We trust they will all be well attended, and that a progressive and improving spirit may everywhere be manifested.

### SEEDS BY MAIL.

We have many complaints of the neglect of seeds, which we know have been carefully mailed, and we have been at no little trouble and expense in duplicating and paying postage on packages thus lost or stolen. Congress should pass a law authorizing the sending per mail of all new and valuable seeds, grafts, &c., in packages of not over *one pound*, at the rate of bound books and pamphlets, (one cent per oz., prepaid) and protecting such packages like letters. We hope to enlist the interest of a distinguished member of the next Congress in this reform, and trust our agricultural and horticultural friends everywhere will agitate the subject earnestly.

### BURTON'S SUGAR MILL.

WE regret to state that the draft of a cheap Sugar Mill, intended for this number, never reached the engraver—having been lost in the mails between here and New York. We have written to Mr. BURTON for another drawing, and will endeavor to give it in our September number, which will go to press about the 15th August.

### FRUITS THAT NEVER FAIL:

AN Alabama subscriber, (T. P. L.) who appears somewhat discouraged at the failure of his efforts to raise regular crops of the more tender stone fruits, such as the Peach, Nectarine, &c., asks us if "there is no way to prevent the ravages of late spring frosts and save our fine fruits—so indispensably necessary to health and comfort, in such a climate as ours?" He also requests us to give, from our own experience, at "Fruitland," a list of "such varieties of fruits as may be relied upon, generally, to escape the frosts without any protection, or great trouble on the part of the grower."

It affords us particular pleasure to reply to the inquiries of our friend, for it has long been our earnest wish and desire that every man, woman and child in the country should have a constant and unfailing supply of the very best fresh and preserved fruits of our climate; and it is our firm conviction that if ripe fruits were universally made a regular article of food instead of being regarded as a luxury of somewhat doubtful safety, many of the diseases and ailments of "suffering humanity" would be entirely unknown. Were this the proper time and place, it would be an easy task to point out many of our errors in dieting, and to prove the great blessing of a constant supply of ripe and healthy Fruit, especially during our long and sultry summers; but as no person of ordinary intelligence will deny the importance of carefully cultivating the finest Fruits, we proceed to answer the queries of our subscriber:

1. We do not know of any practicable method of protecting large orchards from the effects of late frosts; but we do know how all our readers can have almost a constant succession of Fruit from the first of April until the last of the following March, and we intend fully to avail ourselves of that knowledge hereafter. In the raising of Peaches, Apricots, Nectarines and Plums, it must be borne in mind that an elevated locality and a northern or north-western aspect are most favorable. Something may, also, be done in gardens, or on a small scale, by raising a dense smoke from piles of damp and half rotten wood during the nights when frost is anticipated; but when there is a constant succession of frosts for weeks, and where there are a large surface to be protected, this method will, generally, be found altogether impracticable. We have much stronger hopes from the theory of a pomological friend, who advises the pruning or shortening-in of the Peach and its congeners, just before the blossoms begin to expand, with a view of retarding their blooming, (which it will often do, for at least 10 or 15 days); but as this method has not been fully tested, it cannot yet rank among the sure remedies. It shall be carefully tried, and reported upon hereafter. Conceding, then, that the Fruits we have mentioned, are quite liable to the blighting effects



of frost, and that, at present, there is no practicable or "paying" method of protecting them, we proceed to enumerate the fruits that, with proper attention, may be said *never to fail*, in this vicinity.

1st. THE STRAWBERRY.—This delicious fruit begins to ripen with us early in April, and has, frequently, given us a constant supply of fruit until the 20th of July, *without artificial watering*. With a soil of the proper depth and culture, mulching, manuring with leaf-mould, ashes, &c., and a regular supply of water—all of which are essential to the perfection of this fruit—we have no doubt that the whole period of fruiting may easily and profitably be extended from 3 to 5 months. Longer than that, the effort to "force" them would not "pay"—and it is probable that the appetite, ever "studious of change and fond of novelty," would prefer the other fruits, each of which Nature seems to have adapted to its own particular season. Very few people, however, in the South have yet been surfeited on the Strawberry—and, as our climate is highly favorable to its production, we hope to see its culture everywhere extended. The reader will find an excellent article on the choice of varieties, modes of culture, &c., in our July number, page 219. The earlier blossoms of the Strawberry are often killed by the frost, but it invariably blooms again and produces an abundance of fruit.

2d. THE FIG.—This delicious and healthy fruit—of which we have many varieties—grows almost spontaneously everywhere; though a rich and somewhat moist soil is best adapted to its perfect development. Three crops a year are produced here, under favorable circumstances—though two crops are as many as we can safely count on. As a breakfast dish, ripe and luscious Figs are unrivalled—being more light, digestible and wholesome than almost any other fruit. They, also, make a very rich and delicate preserve, and there is no good reason why the whole Union may not in time be supplied from the Southern States with dried Figs, equal to those of Smyrna. There is another most delicious confection, known as "Turkish Fig Paste," which is said to be manufactured at Constantinople. It is, *apparently*, made by boiling down ripe Figs in a syrup of white sugar, straining the mass to free it from the seeds, &c., flavoring it slightly with spices or lemon, and adding isinglass or gelatine to give it the proper consistency. It is, while soft, poured into little square moulds, allowed to cool and harden, then sprinkled with a fine powder of sugar and flour, and packed in fancy pasteboard boxes, holding from 4 to 6 pounds. It is sold by the New York confectioners at 50 cents per lb., retail; or 35 cents per lb., by the box. It will keep any length of time, to all appearance; and we should think any of our skillful housewives could make it with little difficulty, by procuring a sample box and examining the article carefully. The demand, at 25 or 30 cents per pound would, we doubt not, make it a very profitable article of commerce. Who, among our lady readers, will exhibit samples of Southern "Fig Paste" at the coming Fairs of Georgia, Alabama, or South Carolina? The *Cultivator* will give a premium of Ten Dollars (\$10) for the best box shown, and the privilege of publishing the recipe for making. Fig trees are not entirely hardy here—they need a slight protection of pine tops or similar shelter, while young, succulent and tender—severe winters often nip them quite sharply, but their recuperative power is astonishing: as some varieties, (the Alicante, for instance) even when killed to the ground, throw out new shoots in spring and bear fruit upon these young shoots the same year. We have never known anything like an entire failure of the Fig crop.

3rd. THE APPLE.—This most valuable fruit has been, heretofore, undeservedly neglected. We find it adapted to almost every variety of soil, except a dry and barren

sand, and at "*Fruiland*" we *never have failed of a crop*. It is easy to have an uninterrupted succession of Apples from the first week in June until the following spring—nearly the whole year—by commencing with the Red Astrachan, Julian, &c., and ending with the Carter, Culasaga, Nickajack, Shockley, Yellow Crank, etc. The finer varieties of early apples, such as Red Astrachan, Early Harvest, &c., may (when Peaches fail,) be shipped at good prices to the Northern cities; and the fall and winter varieties always command high rates in our own markets. We need hardly repeat the necessity of always selecting our *native Southern varieties* for fall and winter use. All, or nearly all the European and Northern late Apples ripen here in summer or early autumn, and are *worthless* for keeping purposes. *New varieties* of the Apple may be produced from the seed, but the readiest method of propagating well known and approved kinds, is by grafting and budding into healthy seedling stocks. Thrifty grafts of one year old, are large enough to transplant into the orchard or fruit garden; but two year old trees, properly trained, with stocky trunks and low heads, are better. The Apple should supersede the Peach, largely, wherever the latter is peculiarly liable to be killed by spring frosts. It possesses many advantages over the Peach, in its hardiness, greater duration and longer keeping qualities; and in all its products, such as dried fruit, cider, vinegar, &c., &c., it may be made an article of extensive use and commercial importance.

4th. THE PEAR, when properly grown and ripened, is unquestionably the king of all fruits; but comparatively few persons in the South have ever eaten in *full perfection* a Bartlett, a White Doyenne, a Seckle, a Duchesse, or a Winter Nelis. This fruit is more tender than the Apple, but less so than the Peach, Apricot, &c. It seems perfectly adapted to all parts of the South, but requires more deep and careful culture, mulching, manuring, &c., &c., than careless people are willing to bestow upon it.—It should be planted largely by all who are prepared to give it proper treatment; as the marvelous prices which it commands in the large cities (from \$1 to \$6 per dozen, for the best winter varieties) will justify a very liberal outlay of money and labor in its production. We shall have much more to say on this fruit, when the great experimental Pear orchard of our friend and neighbor, Mr. BERCKMANS, gets fairly in operation. It may be proper to state that there is sometimes a tendency on the part of both the Apple and the Pear to fail upon alternate years, independent of the frost. This is generally the result of exhaustion by over-bearing in the regular seasons, and may be prevented and a crop secured *every year*, by thinning the fruit, proper culture and liberal manuring.

5th. THE GRAPE.—We are disposed to rank this fruit as the *easiest of propagation*, the *surest* and most *profitable* in all we have yet mentioned, and to recommend it most strongly to the attention of all persons who wish to enter into the business of Fruit Growing. The Grape will grow and produce well, in the South, in almost any soil which has been properly prepared. This preparation consists in thoroughly loosening and disintegrating the soil by trenching with the spade, (or plow and spade,) to the depth of at least *two feet*, though even twice that depth would be better; and if the land is naturally very poor, incorporating the proper quantity of manure with the soil, during the process of trenching. As a general rule, however, it is not necessary, in common vineyard culture, to apply any manure until the second or third year, when the vines begin to bear fruit. The Grape is propagated by cuttings, which may be easily and cheaply obtained—the hardy *native varieties* such as Scuppernon,\* Catawba,

\*The Scuppernon must be raised by layering—it does not strike well from the cutting.

*Isabella*, &c., scarcely ever fail, and from what we have seen of the productiveness of the vineyards of Mr. AXT and others, we are convinced that, for the purpose of Northern shipment alone, the raising of Grapes can be made most remunerative by all persons who are within the proper (railroad) distance of Norfolk, Charleston or Savannah. The Catawba Grape ripens here, ordinarily, about the 20th of August, just *after* our Peach season is over, and *before* the Peaches of the North come in. It (the Catawba) can be shipped to Baltimore, Philadelphia, New York or Boston packed in open (slatted) boxes between layers of its own leaves, and will bear the carriage as well if not better than Peaches, as we know by experiment. Arriving in the great cities during the sultry and feverish "dog days," what could be more healthful or attractive than heavy and blushing clusters of Grapes, fully and perfectly ripened under our ardent Southern sun, and what (but the high price) could prevent rich and poor from alike partaking of such luxuries? As to the price, we have sufficiently reliable data to base our calculations upon. The *Isabellas* and *Catawbas* of Dr. UNDERHILL, of Croton Point, N. Y., which come into market from 4 to 7 weeks *after* ours ripen, are sold by that gentleman to dealers, at \$15 per hundred weight, or 15 cts. per pound; and retailed at probably double this rate. The finer varieties of Grapes, raised under glass, sell readily at from 50 cents to \$1 per pound, and the supply has never yet equalled the demand. From these facts, we will assume the price of our Southern Grapes delivered to New York dealers, to be 20 cents per pound; and had we a large capital to invest in any one horticultural project exclusively, we should (with the certainty of an unlimited demand, at such a price,) put every dollar of it into a *Catawba* vineyard.

Of the making of Wine from the Grape, we will not discourse at present; that is an after-consideration, involving a greater outlay of money and a deeper knowledge than most of us yet possess. That it will, in a comparatively short time, be a most extensive and profitable business, replacing in some measure the production of Cotton, especially on our old and worn hill sides, we have not the slightest doubt. Our object *now* is to induce our readers whose tastes incline in that direction, to *plant vineyards properly*, and with full confidence that either in the form of Grapes or grape juice, the productions of their skill and labor are sure of bringing them a golden reward, and of conferring a blessing upon the country. R.

#### HILL SIDE DITCHING---A PROPOSITION.

EVERY man who has reflected a moment on the subject, feels the urgent *necessity* of adopting some system of hill-side ditching which will prevent the washing and gullyng of our lands; but comparatively few people understand the best method of laying off and running the ditches, guard-drains, &c. We have often thought that if a corps of young men were to qualify themselves regularly as Engineers of Hill-Side Ditching, and travel through the country, stopping wherever their services were engaged, and charging a fixed sum per day for locating and superintending the making of Ditches, they could find remunerating employment and confer a great benefit on the country. In the absence of such a corps of Engineers, however, and with a view of making a beginning in the good work, we lately ventured to address our correspondent, Mr. G. D. HARMON, (now of Utica, Miss.) on the subject, suggesting that he should make a trial of the enterprize the coming fall. Below we publish the reply of Mr. HARMON, from which it will be seen that he is ready to undertake the

work as soon as sufficient inducement is offered him. We do not know precisely what suggestion to make respecting terms, &c., but would merely propose the following plan for the present, viz: to open a book at our office, in which to enter the names of such gentlemen in *Georgia* as wish to secure the services of Mr. HARMON, and to transmit these names to Mr. H. by the last of October. He can then decide upon the propriety of engaging in this new business, state his terms through the *Cultivator*, bring on his compass and leveling instrument, and enter upon his "mission." We need not speak of the *qualifications* of Mr. H. for the work. He is well known to all our readers as an earnest, practical and intelligent man, who thoroughly understands the subject, and who is fully capable of teaching our planters to *save their lands* from deterioration and ruin. He has a wide field of labor and usefulness before him, and we hope that very many of our readers in *Georgia* will avail themselves of his knowledge and skill.

MR. D. REDMOND—*Dear Sir*: Your very kind and complimentary letter of 11th inst. is before me, and I am at a loss to know how to answer you as to becoming a "missionary" in the cause of the salvation of the gullied hills of our "Sunny South." I would not hesitate one moment if I knew that my services would be appreciated and rewarded. I received, some time since, a letter from Mr. B. of *Georgia*, on this same subject. He wished to know what would induce me to return to *Georgia* and follow Hill-Side Ditching, &c. I wrote him that I could not tell until I knew the state of the public mind on the subject. He wrote me again that he had addressed me through the *Cultivator*, and I could have an opportunity of feeling the public pulse in my reply. I have been looking for the article in print, but have not seen it.\*

I believe with you, that I could be of more service to my country to engage in the business in question than in any other way, provided my country would be of some service to me.

But would I be sustained? My prospects in my line of business are very flattering. I have no less than four propositions for next year, and I must have some encouragement before I can get the consent of my mind to yield up my business and engage in something else. I will say to you then, that if I should get sufficient encouragement between now and the first of November to induce me to believe that I could do well at the business referred to, better than to follow my present avocation—I will engage in it heart and mind, to continue it as long as I can handle a compass and level, and there is a gully to be found, and my services rewarded. You are at liberty, therefore, to introduce the subject in any way you may think best.

And in conclusion permit me to say that the very act of yours shows that your heart is deeply in love with your country's interest.

Your's &c.,

G. D. HARMON.

Utica, Miss., June 24, 1857.

Gentlemen desiring the services of Mr. HARMON, will send their names and Post Offices to the Editors of the *Cultivator* as soon as possible.

Will our friends of the "*Cotton Planter & Soil*" republish this article, requesting their *Georgia* subscribers who wish to engage Mr. H., to address us? We claim the *first efforts* of Mr. HARMON for the washed and gullied old fields of our own State, promising, as soon as all these are properly horizontalized, to loan him to our *Alabama* and *Carolina* neighbors.—Eds.

\*We will give it hereafter.—Eds.

## THE CHEMISTRY OF TILLAGE.

THERE are so many qualifying, and modifying circumstances connected with the Chemistry of Tillage that the subject needs to be discussed with caution not to misinform nor mislead the practical cultivator. It is safe, however, to state, as a general rule, that no chemical action will take place in the soil, nor elsewhere, between two or more *solid* bodies. One at least must be dissolved, in order to give its particles perfect freedom of motion, that they come fully into contact with the atoms in the body with which a chemical union is to be consummated.

The first, and not the least effect of tillage is to increase the solubility of earthy minerals and vegetable mould, which are an indispensable part of the food of plants. In the attainment of the disintegration and solution of solids, the atmosphere greatly assists the implements of tillage; its gaseous atoms have that perfect freedom of motion which enable oxygen and carbonic acid to permeate all the earth stirred with the plow, and attack all substances subject to the chemical influence of either. A bag of thoroughly pressed cotton burns on the surface *only*, but so soon as the ropes are severed, and the cotton expands so as to let in air through the mass, the most obvious and remarkable chemical action (combustion) ensues. A sudden change in the physical condition of the cotton has a wonderful effect on the combination of oxygen in the atmosphere with the carbon in its fibres. Less in degree and vehemance but similar in character, is the chemical union of this powerful elements with both minerals and organic bodies in soils when pulverised into fine particles. Oxygen can be made to burn iron with greater intensity than fine charcoal, or gun-powder. Platinum sponge also illustrates the power of mere mechanical comminution of a metal to condense vital air, and intensify its chemical properties. Tillage being purely mechanical in the first instance, it is valuable, with but few exceptions, in the ratio in which it pulverizes and thoroughly comminutes the solids operated upon. Insoluble mould, and insoluble silicates and phosphates, aided in a large degree by the carbonic acid eliminated from mould, are rendered available food for growing crops, which, without tillage, no plant grown by the cultivator could appropriate. In case vegetable mould is deficient in quantity, as it is apt to be on all old, or long cultivated fields, there often arises a *doubt* as to how deep one had best plow to command the best returns for his land and for labor?

It is to throw light on such difficult problem in tillage as this that chemistry, and chemical philosophy are useful to farmers, and planters. While a special prescription adapted to each field, with its peculiar circumstances, is out of the question, from any analysis of its soil, except in extreme cases, yet *sound principles* in cultivation can have no other basis than a scientific knowledge of the elements of fertility, of their affinities, solubility, and other properties and functions, which adapt them to the wants of organic beings.

Taking wheat as the best expression of fruitfulness, and studying its earthy part drawn from the soil, we find about 80 per cent. of it, (the ash of the seed) to be phosphoric acid and potash, but in what state of chemical combinations we will not now enquire. The same system of tillage that will best supply the acid and alkali named to the valuable seeds of the wheat plant, will serve a similar purpose for the seed of the cotton plant, corn plant, and for all other crops. Now, chemistry tells us in what

forms and places both potash and phosphoric acid exist in soils whether in an available, or in an unavailable, condition. Phosphoric acid locked up in masses like granite, in hard and large crystals of *apatite*, or in combination combination with iron or alumina, is unavailable because insoluble in water. Potash forms an insoluble salt with silicic acid, (flint) and in this condition it abounds in most primitive rocks; but water charged with carbonic acid decomposes this salt, and then dissolves both the carbonate of potash and the new silicate which has a large amount of alkaline base. If all the salts of potash were as soluble in rain water as most of them are, this alkali would soon be so far washed out of the soil that very few plants of any kind would grow therein. Silica, or as it is commonly called by chemists, silicic acid, appears to be nature's favorite for keeping potash, soda, and magnesia stored up in the subsoil to avoid the utter and hopeless destruction of forests and grasses by the hand of man or by other means. It is quite impracticable to remove all the phosphates and alkalis from an acre of ground; although it may be so impoverished as to cost three times more to renovate it than to buy another acre as good as that was in the beginning.

As the writer conceives, the only progress made in the present century in the art of tillage is limited to deeper plowing, and thereby drawing more on the *subsoil* for the raw material of agricultural plants. Where fields are plowed no deeper than they were fifty years ago, we do not see that they yield better crops now than they did then, whether old or new. Where more manure is applied, that of course indicates a gain; but confining ourselves to tillage alone, the improvement has been mainly if not exclusively, in stirring more earth, rather than in having a wise adjustment of mould to minerals, and the more perfect commixture of both in the mass. Carbonic acid, as shown by chemical experience, being so valuable to dissolve both silicates and phosphates in the soil, and being, moreover, furnished so largely by vegetable mould, the wise cultivator will adapt both his tillage and his crops to the *increase* rather than decrease of mould in all his upland. Whoever neglects this is a bad planter; or he is killing the goose that lays his golden eggs.

Good mould is more valuable than poor stable manure: and it has the additional advantage of being formed over an indefinite surface where it is needed, whereas manure has to be handled and spread by the labor of man and beast.

There may be some difference in cultivating renovating plants to enrich a soil, and staple crops for market; but the difference is slight. In either case, a large growth is desired, though one can better wait for the chemical results of thorough tillage in fallow crops than in grain or cotton culture. Few men can know the true value of their subsoil before they test it by years of deep and thorough agriculture. Two years ago, some of our land that appeared too poor to cultivate at all without manure, did better last year, and promises a fair profit this season. It needs more organic matter before its latent mineral resources can be fairly tested. Possibly we may be better able a few years hence than at present, to say what plants are best to grow and plow in to be incorporated with a lifeless surface soil, or subsoil, for in many instances both are the same in character and composition. As bare cultivation adds no element to the soil, to improve a farm by tillage alone—drawing fertilizers from the atmosphere and the deep subsoil—is a somewhat slow process. Much depends on the strength of the subsoil for agricultural purposes. It may contain more *lime* than it readily yields either to rainwater or acids; but which deep tillage will bring out after a few years. We have noticed with interest the increase of *snail-shells* in a field which has been only four years under the plow. Lime is not wholly ab-

sent where these land mollusks abounds; for their shells, like those of the oyster, are mostly the carbonate of lime. Instead of selling off the farm every element of fruitfulness which one may develop in crops by good cultivation, the true policy is to husband the resources of arable land, and sell air and water as far as practicable. Ninety-nine parts in one hundred of a bale of cotton are convertible into water and air. The injury done to the soil by its extensive production, where the seed is used as manure, accrues more from shallow plowing and washing the surface than from the value of the primary ingredients extracted from the earth and exported. Land should be so tilled as not to wash, but retain all the fertilizing salts that raise up in the water which evaporates on the surface of the ground during every twelve months, so far as these salts are not consumed by plants. Deep tillage greatly facilitates the ascent of water charged with all the elements of plants, as it equally encourages their roots to descend far into the earth, and thus command her best powers of nutrition. By pursuing this practice of opening up the subsoil from year to year, it is soon filled with decaying roots, and these actually manure it—dissolving and decomposing the most refractory minerals ever found in plants. The chemistry of Tillage teaches the cultivator to manure the subsoil while raising crops for market through that part of them which he leaves to rot in the field. It is far better to have corn and cotton stalks, straw and leaves decay *under* the ground than above it. The deeper you cover them with the plow the better in the long run, where the permanent fruitfulness of the soil is an object. Let mould (or manure) be perfectly incorporated with clay and sand, if you would bring out the highest powers of each.

L.

#### A WORD OF EXPLANATION.

THE article headed "Education in Rural Districts," published in the July number of the *Cultivator*, was written for a previous paper, but arriving at the office too late for insertion, it was laid by for future use, and its existence entirely forgotten by the writer, who resides something more than 100 miles from Augusta. This lapse of the memory compels us to apologize for using a part of the same matter again in another editorial under the heading "Agricultural Colleges," which appears in the same number.

During our long connection with the press, our memory has never failed so badly before; and were it convenient to see proof sheets of what we write, or were we at the time less absorbed in collecting facts and making researches in connection with our public lectures, such a blunder could not have been perpetrated.

L.

THE CABBAGE WORM.—MR. E. D. HEWITT, of East Randolph, Columbia county, Wisconsin, in a letter to the Commissioner of Patents, remarks that he observed in the Patent Office Report for 1855 that the cabbage worm eat the cotton plant when small. The way in which he treated his cabbage was, to sow in the spring two and a half bushels of salt to the acre before planting it. In all instances, after such treatment, the worm disappeared. In his opinion, salt would not kill cabbage, and if one teaspoonful of salt was put into the cabbage before it matured, it would head much better, and would not be affected by the bugs and lice. In conclusion, he hoped that some of the cotton planters would try a similar experiment.

"EXCELSIOR"—"YOUNG AMERICA."—The Corn and Cob Crusher described by G. D. HARMON, Esq., in our July number, page 227, is better known by the name of "*Young America*" than that of "*Excelsior*," which Mr. H. uses by mistake.

SUGAR MILLS.—MR. GLAZE, of Columbia, S. C., writes the *Farmer & Planter* as follows:

"As to the Sugar Mills, we are getting up three patterns. One will cost, all complete, \$75; one, \$125; and the large size, \$169. I think of putting up a small size, with rollers of 6 or 8 inches, which will do for small planters, at about \$40.

### Horticultural Department.

#### FRUITS FOR THE SOUTH—APPLES, &c.

EDITORS SOUTHERN CULTIVATOR.—Since the spirit for raising fine fruits has been awakened amongst us, new varieties are constantly coming into notice, many of them being found in remote and out of the way corners of the country. We have long been used to look to the mountainous sections of the South for fine apples, not supposing they would thrive in the low-country; but last autumn I went down to Laurens county, Georgia, and paid a visit to the orchards of Mr. S. Yopp, who for many years has devoted his attention to the cultivation of fine fruits. It is Mr. Yopp's principle to make as much as possible within his own premises, and to buy as little as possible, and I never met with a man that comes so near up to it as Mr. Yopp, for, with the exception of tea, coffee and sugar, I think that everything is home-made, from shoes and clothes for white and black ones, to wine and molasses. It was on the 20th of September, and I found an abundance of splendid peaches, apples and plums, the latter, however, being rather on the decline. I will describe a few of his Apples.

*Yopp's Favorite*.—This variety, being at the time in full perfection, I sent it to the Fruit Committee, at Athens, which, in the February No. of the *Cultivator*, reported so favorably on it, that it would be useless to say anything more about it in the way of recommendation. I consider it the finest Southern apple, in its season; which, unfortunately, does not extend much beyond the month of September.

*Blackshear*.—I cannot say where it originated, as Mr. Yopp had received the grafts from Col. Blackshear, from whom this fruit has taken its name. If I am not very much mistaken, Col. Blackshear lived at that time in Telfair County, still farther to the south. The tree is of vigorous and upright growth, and a good bearer. Fruit very large, often measuring 14 or 15 inches in circumference; rather flat. Skin dull, milky white, with a few faint red stripes, and dotted with dark colored spots. Flesh white, crisp, very juicy, and with a rich vinous flavor. Fit for use during October and November.

*Laurens Greening*.—Above medium size, nearly globular. Skin dark glossy green; flesh greenish white, crisp, subacid and highly flavored, somewhat resembling the Rhode Island Greening. Fit for eating during November and December.

*Dean Crab*.—This is a very pleasant eating Apple; its chief value, however, consisting in yielding an excellent cider. Fruit below medium size, globular; skin deep yellow, considerably covered with red streaks and splashes. It is an immense bearer, but will only last until the latter part of October.

On the same journey I also found an excellent peach, a seedling from Houston County, Ga., and bearing for the first time. Its name is—

*Osceola*.—It is a little above medium size, nearly round; skin dark cream-colored, with a deep red cheek. Flesh orange colored, very juicy, with an exceedingly sweet and rich aroma, resembling that of a Jefferson Plum. Most of the Autumn Peaches are a little deficient in sweetness. This, however, is as delicious as any Peach in July and August; ripe the last part of September; freestone.

ROBERT NELSON.

*Fruitland Nursery, Augusta, Ga., July, 1857.*

## PEARS ON QUINCE--THEIR ADAPTABILITY to the South.

EDITORS SOUTHERN CULTIVATOR—I see some statements in the *Cotton Planter and Soil*, (the January number,) in regard to Dwarf Pears, and from the author's remarks conclude he is not well informed in regard to them, or the charges he institutes against nurserymen. I defend the cause, not to satisfy the writer, but for the benefit of those who may be misled by his remarks.

He says they are "the hobby of the nurserymen." Now, I transplanted some three hundred Dwarf Pears two years since, and was anxious to procure them at the South and accordingly wrote to a good many nurserymen, but found I could not procure them of the age and size I desired, (three years old.) I then sent my order, with a check accompanying it, to a well known firm on Long Island, N. Y., and the check was returned to me, with the information that they had disposed of all the trees of that age they had grown, and that one man had taken between two and three thousand. My check was again returned, and they imported them for me. What necessity is there for any such remarks as "hobby," when the demand fully equals the capacity of the energetic exertion of the grower to keep pace with it?

He says, again, that the "Quince may do for the North, but will not suit the South." We shall now make extracts for the satisfaction of all who desire the Dwarf, and compare the adaptability of the two climates from well authenticated sources.

M. J. De Jonghe, of Brussels, says: "On the Quince, the wood of a variety of Pear, may acquire a different tinge, but the form of the fruit is generally the same. Occasionally, however, the fruit of some varieties worked on the Quince become larger, is produced in greater abundance, and acquires a richer flavor than that grown on the seedling tree."

Mr. L. E. Berckmans, a Belgian gentleman, one who has been familiar during the greater portion of this life with pomology, and enjoyed the advantages of the best lore, in this respect, that the world has ever furnished, remarks: (*Hovey's Magazine*, November 1856,) "Let the Quince be slandered, it will remain one of our best friends. Your profits in fruit raising are mostly derived from Quince stocks. The best fruits of your splendid exhibitions are from Quince stocks. Mr. M. P. Wilder's best fruits are on the Quince stocks; so are Messrs. Charles Downing's, Ellwanger and Barry's, Dr. Grant's, Mr. Reid's, and my own."

Mr. P. Barry, in his *Fruit Garden*, page 191, says: "There are some dwarf standards on the Quince in our grounds here, and in gardens in this city, that are now eight years old, and about seven to eight feet high, with trunks from two to three feet, heads four to five feet high, and three or four in width, that have borne regular and heavy crops for the last four or five years, without any other care than thinning out superfluous wood."

Mr. J. J. Thomas, in the *American Fruit Culturist*, page 197, says: "The varieties of the Pear do not grow with equal facility upon the Quince. A few, as Duchesse d'Angoulême, Louise Bonne of Jersey, and Beurre Diel, are so much improved in quality that their cultivation on pear stocks is wholly discontinued by skillful fruit grow-

ers. \* \* \* \* \* As a general rule, double-worked trees do not flourish for a great length of time. Single-worked have done well for thirty or forty years, under favorable influences."

Col. John C. Jenkins, of Mississippi, says, (Agricultural Patent Office Report, page 249,) "I cultivate over one hundred varieties of the Pear. The greater number are dwarfed on the Quince. On this stock trees six or seven years from the bud have grown from twelve to twenty feet in height, and have a diameter in trunk of six to eight inches. \* \* \* \* \* Beurre Diel—on quince and standard. My trees, on quince stocks, seven years from the bud, are large and vigorous growers, bear heavy crops, trees this year thinned out, with one hundred and fifty specimens on each tree, fruit attains a much larger size here than at the North—some of my specimens weighing from one to one pound and a half, and few less than a pound."

We have here arrayed such evidence in regard to Dwarf Pears as our present limited facilities will admit—they are all, however, from good authority, and from parties of extensive information in this particular.

We shall now call the attention of our friend of the *Cotton Planter and Soil*, to a comparative statement of trees on Quince, at the North and the South:

Mr. Barry resides in the Genesee valley, in the north-western portion of the State of New York. This Genesee country is almost fabled for its fertile lands. The place on which their nurseries are situated has a rich black loam of about twelve inches, and receives such culture as we seldom dream of, and never execute here. Dr. Jenkins was on the Mississippi river, near Vicksburg, and his soil is about eighteen inches in depth, but, we presume, he never gave his the thorough cultivation which Mr. B. alludes to, and we shall place them on an equal footing. Now comes the deciding question, whether the Quince will stand or fall, and whether it flourishes to a greater advantage at the North or South? Mr. Barry says his trees on quince are eight years old, and seven to eight feet high. Dr. Jenkins says his, on the same stock, are six to seven years old, and are from twelve to twenty feet high. Thus giving the South, trees on same stocks and from one to two years younger with same advantages, *double the size of the Northern ones*. Dr. J. says he had to thin out his specimens to one hundred and fifty, and they weighed from one to one pound and a half each, which would give, at fair estimate, two hundred pounds of Pears on his dwarf of seven years old. Does this look like a catch-penny affair? If so, we would beg to be caught with a good many of them near some of our cities, especially when they are worth what they have been in New York city during the past winter.

And now, in conclusion, I will make the following query: Do any of your nurseries have a surplus lot of Pear trees left over? Does not the demand generally equal and sometimes exceed the stock on hand? Does it not cost every cent as much to produce a dwarf pear on a *true Angers* stock, and give you as much labor, time, and care, as it does to produce one on its own root, and if so, why should it be christened "hobby of the nurserymen?"

POMONA.

*Mississippi, April, 1857.*

P. S.—My quotations from the *Cotton Planter and Soil* are from memory. I subscribe for it, but have not the January number yet, but my meaning will, in the main, concur, if not *verbatim*.

[REMARKS.—The demand for Dwarf Pear trees, both North and South, has thus far exceeded the supply; and we would say further, that two conditions are alone necessary to the perfect success of the Dwarf Pear in the South, viz: 1st. Select the proper *varieties*—such as are known



to do well on the Quince; 2d. Plant, prune, and cultivate properly and thoroughly. The connection of the Pear and Quince should, in planting, be set six inches below the surface—the ground must be thoroughly trenched and manured—the trees mulched for the first few years, and pruned properly, and nature will do the rest. We should desire no better investment than forty or fifty acres of selected Dwarf Pear trees, within easy reach of the Charleston or Savannah steamers. There are fortunes to be made in the shipping of Pears, Apples, Peaches, Grapes, &c., from the South to the North, and if we live, we intend to have a still deeper interest in the enterprise than we have at present.—D. R.]

#### FRUITS OF THE SEASON—PROPER METHOD of Pruning, &c.

EDITORS SOUTHERN CULTIVATOR—The severe frosts of the past spring have left us a few apples only, among all the fruits subject to injury by their too frequent visitations. Fortunately, however, we have Strawberries, Raspberries, Blackberries, and above all, Grapes, which ask no favors of frosts, but reward the careful cultivator with an abundance every year without exception. These, then, we ought to cherish and rely upon as fast and enduring friends. [See, also, article headed "*Fruits that Never Fail!*" in another column.—Eds.]

*Pears.*—We had two series of frosts last spring, both of which were destructive. The first on the 2nd and 3rd of March—the second on the 6th, 7th, and 8th of April. The first killed nearly all the Pears on some trees, and many on others. The trees were then just ready to flower. On the 13th March we had frost, and ice formed on the trees all day, but killed nothing. Afterwards some of the pear trees, especially the Bartlett, brought out fine crops of fruit as large as green peas, when the second killing frost came and swept them clean.

Plums, Apricots and Nectarines, all are gone.

*Peaches* show here and there a mourner. The first of the two frosts killed almost all of those having small flowers; while, of these having large flowers, there was still left a fair crop. These were swept away by the second hard frost. Such, on my grounds, was the difference between the large flowering and small flowering peaches. During my experience of eight years, I have noticed that the Noblesse, having large flowers, has invariably escaped frosts better than any other of the improved, or known varieties of the peach. None of these, except the Noblesse, now exhibits a single peach. Among my seedlings there are several trees of the large flowering kind that have a few peaches on them; while there is not one on the small flowering kind. This fact seems to me to be worthy of further notice. It is owing to the opening of the small flowers earlier than the large ones? But what makes them open earlier?

*Cherries.*—Eight years ago I procured from Mr. Downing's nursery on the Hudson, twenty varieties of this fruit. The trees all grew vigorously, but many of them were injured by the sun killing one side of their trunks; and none have been of any service. Now and then a few individuals ripen by way of provocation to "mental cursing"—nothing more. Whether to let them live on, incumbering the ground, or to cut them down at once and cast them into outer darkness—that is the question. In presence of these unwelcome facts, the common Morello

thrives and bears in this vicinity generally, very fair crops of very fair fruit, and has done so from the first settlement of the country. They have been propagated by planting their seeds; and on pretty diligent search I have found some trees much better than others, and well worthy of being disseminated by grafting. None of these have more than a few solitary cherries on them this year. The last heavy frosts were too much for them.

But there is still another variety here that ought to be brought to more general public notice, which somebody has christened "*The DeKalb.*" On the 1st of the present month I saw several of these trees, all bearing very fair crops of fine ripe cherries. They are of medium size; roundish; bright red, inclining to dark when quite ripe; flavor pleasant, subacid; fruit stalk from one to one and three-fourth inches, set in a rather deep cordate cavity; and clinging to the seed quite firmly; fruit occasionally in pairs. I learned from Mr. Robinson, a professed pomologist and close observer, that this tree flowers some ten days later than the common Morello, which accounts for its having a fair crop of fruit, while the latter has none. These I have since examined at other places about here, and the few specimens which I found were still green and not more than half grown. So are there now a few stunted unripe individuals on my May Duke trees, from which I infer that the DeKalb is earlier than the May Duke. I am told that the origin of this valuable Cherry is unknown, though it has been cultivated about here and propagated by seed for nearly thirty years past. Some have supposed it to be the Kentish; but if a tree of that variety shown to me by Mr. Robinson be genuine, the De Kalb is certainly not that. The De Kalb has large reniform glands, and its new wood is light colored, while the Kentish has small globose glands and dark brown new wood, and the leaves of the latter are larger than those of the former. Furthermore, the one solitary specimen of fruit on the Kentish, a young tree, was still green. The probability is that the DeKalb is a seedling of unknown origin.\*

*Pruning.*—In your paper have lately appeared three systems of pruning, each, in some measure, distinct from the others. The first is that of S. T. Jones, which forces the tree to bend out in every direction, like the petals of a flower, leaving the center hollow. The second is that of Prof. Mapes, giving the top of the tree a round form without the hollow centre. This is the plan described by Downing. Both let the tree send out several branches low down, and shorten back the terminal shoots annually. The third is by G. M. Kern, and consists in forcing the tree to preserve a center shaft all the way up, and send out laterals from that, which also must have their center shafts with laterals—the whole to be shortened in and kept low. This appeared in your May number, and, in my opinion, is the best of the three. I had adopted, to some extent, this plan a year ago, having become dissatisfied with the others.

I have pruned my own trees with my own hands for eight years, following, as nearly as a novice could, the directions of Downing; and I shall follow them no longer. He does not advocate the center shaft, but cautions against too much training, and says that "every fruit tree \* \* \* should be allowed to take its natural form, the whole efforts of the pruner going no farther than to take out all weak and crowded branches." This ill-defined advice led me far into error. I let too many limbs grow out from near the bottom, trying to keep the top well open by tak-

\*The Cherry known as "DeKalb," is most probably the "Glass Morello," of Europe, or the Flemish, &c., of Downing. (See "*Fruits and Fruit Trees*," pp. 195.) It is a good and sure bearer, of tolerable quality, and deserves extensive cultivation.—Eds.

ing but the weak and crowded branches. But from the several branches diverging low down I had numerous crossing laterals, in spite of all efforts to the contrary; whereas, if the center shaft had been kept up strong, and laterals trained from it according to Kern's plan, crossing laterals would have been prevented, and the tree would have been well balanced on all sides. The center shaft, with a low top and shortening in, I believe the true plan.

The open center plan forces out on all sides separate branches like leaning trees, with the weight of wood and fruit all on one side. So does Downing's plan in a less degree. Consequently the limbs under a moderate load either bend to the ground or split off; and I have often been under the necessity of raising my peaches from the ground and supporting them with rails, as we support raspberries and blackberries. The vagueness of Downing's directions led me into an error which he, with his experience, would have avoided. I shortened in thoroughly and kept my trees well down, but let them grow too much according to nature, as any new beginner would with such a guide. But my hard master—experience—has taught me a lesson.

The book says that by cutting off half or two-thirds, annually, of the preceding year's growth, the top may be kept low, the tree in full vigor and its life prolonged to thirty years. I did so, but one-third of every year's growth being left, the tree went up higher and higher every year of course, though with less rapidity than it would have done had it not been shortened back. I permitted young shoots to start out low down, but they would not avail themselves of the permission, sure to grow one year and die. In the meantime the vigorous shoots were up at the top. I cut off large branches, a foot or two above the fork, but they would not produce new heads. The remaining branches took the sap and grew higher and higher. In my wrath I cut down some entirely, and began to doubt the policy of trying to make peach trees thrive and bear well and remain young for thirty years. And my doubts were strengthened last year by many of my old trees, of approved sorts, bearing worthless fruit, far inferior to the produce of their younger days. In the meantime, I kept young trees coming on, and was encouraged in doing so by seeing last year that before the Fruit Grower's Association of Western New York, the question was propounded for consideration whether it is "a good practice to renew peach trees by heading them down." Notwithstanding my ill-success, I incline to think that it is. This year I have cut back old trees variously, leaving some with a single bare stump and others with more or less top, and their progress towards immortal youth is very flattering. I shall continue my experiments, and if you do not wish to be troubled with any more long yarns you can burn this at the stake.

Now let me add one more word. Notwithstanding the above, I have had excellent fruit, and professed Fruit Cultivists have looked at my trees and expressed their astonishment how I made them grow so finely.

L WINDSOR SMITH.

Atlanta, Ga., June, 1857.

#### BULBOUS FLOWERS FOR THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—In some former numbers of your valuable periodical I gave a list of Ornamental Trees and Shrubs, suited to our Southern climate. But our gardens should also comprise the most beautiful gifts of nature, pleasing to the eye by brilliant colors and singular forms, or filling the atmosphere with delicious fragrance.

True, Floriculture is but of limited interest and utility, compared to Horticulture; still, nothing contributes more to the beauty of a residence, or the loveliness of an hum-

ble cottage, than a well laid out, and nicely kept flower-garden.

In fact, the love of flowers is natural to mankind. In the civilized world they have become indispensable to all important features of our life. The bride, as well as the corpse; the returning hero, as well as the youth of both sexes, when assembling at a party; happy childhood and tottering, feeble old age, are all adorned with flowers; to all they are the most beautiful and suitable emblems of our feelings. Even the savage, in the joy of his heart, surrounds his brow with the wild flowers of his forest.

Men, however, are not always satisfied with these gifts of Providence in their natural state. By skill, perseverance and high culture, they have improved their natural beauties wonderfully. Who would recognize the superb "*La Reine*," or the magnificent "*Sourvenir de la Malmaison*," in the little single wild rose of our woods?

There is a class of flowers, which, in many respects, are so well suited to our Southern gardens, that I think it proper to say a few words about them. I mean the Bulbs.

I will therefore begin by speaking of one of the first and loveliest beauties of our gardens, surpassed by none. It blooms with us in February and March, and perfumes the whole garden:

#### THE HYACINTH—(HYACINTHUS ORIENTALIS.)

Is a native of the Levant, where it grows on low, sandy places, and is but a small and single flower. It was first introduced and cultivated by the Dutch, as early as the beginning of the sixteenth century. About the early part of the eighteenth century, the first double varieties sprung up, and created quite an excitement for as much as £200, or \$990, is known to have been paid for one root, while a similar variety may now be had for a dime.

The cultivation of this and other bulbs is still carried on in Holland, particularly about Haarlem, which place has become world-renowned. Hundreds of acres are there planted with bulbs, which grow in higher perfection there than anywhere else, and the bulbs of Haarlem form a very considerable article of commerce.

Upwards of two thousand varieties of Hyacinths have been enumerated in catalogues, but, at present, a great many kinds have been rejected, and not much more than four hundred varieties are at present in cultivation.

According to the rules laid down for the beauty of a first-rate Hyacinth, the stem should be strong, tall, and erect, supporting numerous large bells (often fifty or more) suspended horizontally, and the uppermost flower perfectly erect, that the whole may form a regular pyramid. The colors should be clear and bright, and the fragrance delightful. Single hyacinths are as highly esteemed as double ones, and often more perfect and fragrant. In fact, many single kinds are better than double ones. Everybody, however, now desires the double varieties, imagining that the quality of being double consists in having more bells, which is not the case; very often it also happens that single varieties are much more apt to bloom perfectly than double ones.

It is a very common complaint, that hyacinths are deteriorating, and, in fact, by bad treatment they will do so the very first year; and how could it be expected otherwise from the way in which they are treated? How many persons can, and will, take the trouble which must be bestowed on them, in order to raise them in their full perfection?

I will here give the conditions and rules for their proper treatment:—The situation should be rather low, for the hyacinth is fond of dampness all the time. The soil should be sandy, and a bluish-grey, or rather blackish sand, rather a little greasy to the feeling, is preferable. In preparing the hyacinth bed it should be excavated at least two feet deep (30 inches is better.) On the bottom of this excavated bed is put a layer of well rotted cow manure,

six inches thick, upon which is spread a layer of rotten leaves about the same thickness; pine leaves should be avoided, the leaves of chestnut, sweet-gum and hickory being preferable to oak leaves. The compost, which I will describe hereafter, must then be filled in and made firm by trampling, and the bed must be filled to within six inches below the general surface. About two inches of fine pure sand is now spread over the compost, and the bulbs placed on it at proper distance; another layer of sand is spread over the bulbs that they may be perfectly surrounded with sand, and no rich earth come in immediate contact with them. The balance of the bed may then be filled up with any sandy soil in such a quantity that the top of the bulb may be from four to five inches below the surface of the bed.

The best compost for hyacinths is made of: Two parts of grey sand, two parts of rotted cow dung, two parts of well rotted leaves. It should all be thrown into a heap which should be turned over once a month for twelve months before it is to be used.

The best time for planting is, during the month of November, unless it should be desirable to force them into early blooming; if so, they may be planted in September and early part of October, but for that purpose particular kinds must be selected, as some do not force well. It is remarkable, that yellow hyacinths will not stand forcing.

Early in the Spring, as soon as they begin to sprout, the soil should be stirred around them a couple inches deep, and they should receive a good mulching, either of rotten leaves or sawdust, and a sprinkling of salt. This latter will generally be dissolved by rain, dew and waterings, and produce an atmosphere which, when inhaled by the leaves, will have a beneficial influence on the blooming the following year.

I would here mention the peculiarity with all bulbs, and hyacinths in particular, that *their perfect blooming always depends upon their foliage having been developed as much as possible the year previously.*

The bulbs must be left in the ground undisturbed until all the leaves are perfectly withered, when they should be taken up, and, for about a week or ten days, left to dry on an airy, shady place, after which they must be packed away in boxes, filled with dry sand; otherwise they will dry up too much in our hot climate.

When in bloom, it will not hurt them to cut off the flower, but care must be taken *never to injure the foliage.*

In planting the bulbs, all the offsets around them, if any be there, must be taken off carefully, as they otherwise will act as suckers, and injure the blooming quality very considerably.

These offsets are planted on beds by themselves, and in all respects treated like the full grown bulbs, only they are not planted quite so deep. They will the first and second year bloom but weakly, but when having been treated in the usual way for four years, they are to be considered full grown bulbs.

New varieties are raised from seed, but the process is entirely too slow and troublesome for an amateur, as such seedlings will not bloom before the fifth or even sixth year.

The Dutch Florists have also other methods of propagating the Hyacinth, which, though very ingenious, it will be useless to describe in this abridged article.

Wherever beds are prepared for Hyacinths no trees must be found within ten yards at least.

I presume most amateurs will admit that the process, described above, is a rather troublesome affair, and not wonder at the high price of bulbs. They will also see how much the common ill-treatment of the Hyacinth falls short of the treatment which this noble flower deserves.

It is often surprising to most persons that the first blooming is so fine, while the flower becomes inferior the

following year. The explanation is very easy: the first year the purchaser receives the benefit of the care bestowed on the bulbs by the Florist's hand the year previously; the second year he gets the result of his own.

ROBERT NELSON.

*Fruitland Nursery, Augusta, Ga., July, 1857.*

**GREEN CORN FOR THE TABLE IN WINTER.**—It is now generally known that this most delicious vegetable may be enjoyed in the same perfection in winter as in summer. Many troublesome methods are employed by diligent house-keepers for putting up vegetables in summer for winter use. The result is more or less successful in preserving the corn in sufficient flavor to remind us of this favorite esculent of the summer.

Several years ago we learned a way by which farmers and gardeners can provide a supply of green corn for winter use with no more trouble than is given to any other portion of the corn crop. All that is required is to plant a field of corn, so late that it will be in the perfect roasting state about the time of the first frost. Cut up this corn and shock it in the field when the frost is expected. Let it remain there, and take the corn from the stalks every day for use. It will be as sweet, tender and well flavored after Christmas as any corn ever is in July or August. We have tried this experiment for six years in succession, and have failed but once. The failure was last season. We planted at the time indicated by the success of previous years—that is the first or second week in July—upon ground from which a crop of clover had already been taken. But the season proved to be so fine and the growth so rapid that the corn was matured and unfit for the table long before the time to cut it up with safety. This disappointment might be avoided by planting a first and second time. The first farmer who will act upon this suggestion will not only provide a delightful vegetable for his family, but may secure a large profit by supplying the market-gardeners with it through the winter.—*Exchange.*

**TREE LABELS.**—It has always appeared to me that labeling trees after they were transplanted, involved a great deal of useless trouble, besides often endangering their growth by the pressure of the wires by which they were fastened to the trees. I have adopted the practice of making a little plan or map of my grounds, indicating by figures the position of each tree, shrub and plant. In the way I have indicated, a surer and never failing record may be preserved of any and every kind of shrubs, trees and plants.—*Cor. Country Gentleman.*

The New Orleans *Picayune* has been presented with an apple grown in that city—"the first New Orleans apple," it says, "we ever saw." It grew on a tree four feet high.

**PEA NUTS OR GROUND PEAS.**—The Commissioner of Patents has received from Mr. Daniel Shaw, of Lillington Hall, North Carolina, an interesting description of the cultivation of this nut, which has been successfully raised for several years. The crop of last year (1856) amounted to over one thousand bushels, worth \$1.25. As soon as the frost is out of the ground the land is broken up, and about the middle of April laid off with the plow thirty-three inches each way; two or three peas are then dropped in the crosses thus made. The plants are kept clean with hoes and plows until the vines cover the ground; but no dirt is put on the vines. In October they are dug with a rake or plow. Hogs are then turned into the field, and they soon fatten upon the peas left upon the ground. When the vines are left upon the land for the hogs to feed upon, there is no crop that improves the land so much.

## CEMENT CISTERNS FOR SYRUP.

In view of the extensive experiments with Chinese Sugar Cane, the present season, and the probable scarcity of good syrup barrels, a friend suggests the making of cement cisterns in the ground, for storing away Syrup until barrels or casks can be provided. We think the suggestion worthy of adoption, wherever the quantity of Syrup and the distance from market renders it necessary, and would state that the following process will be found simple, efficient and economical:

First, dig a hole in the ground, of the required size, in clayey soil, and then, with a brush, coat over the sides freely with a thin cream of hydraulic cement and water. After this soaks in, make a mixture of one part of hydraulic cement to two parts of good, clean, sharp sand, (with the proper quantity of water to make a thick mortar,) and apply from 1 to 2 inches, with a trowel, to the bottom and sides of the cistern, carrying the cement up within 18 inches of the surface, when a course or two of brick may be laid on the cement wall, when dry and hard. On this brick, timbers and thick flooring are laid across and covered with earth, leaving a convenient trap-door opening of at least a foot square. The whole should then be covered with a tight-roofed shed, to keep the rains from soaking through. Such cisterns may easily be kept as tight and sweet as a barrel, and the uniform temperature of the earth will greatly aid in preserving the syrup. This is no new experiment. It has been successfully tried in Cuba, and, as the cisterns will do for rain water afterwards, they may be adopted where barrels are scarce and syrup abundant.

**BATHING.**—Once a week is often enough for a decent white man to wash himself all over, and whether in summer or winter, that ought to be done with soap, warm water and a hog's hair brush, in a room showing at least 70 degrees Fahrenheit. Baths should be taken early in the morning, for it is then that the system possesses the power of reaction in the highest degree. Any kind of bath is dangerous soon after a meal or fatiguing exercise. No man or woman should take a bath at the close of the day unless by the advice of a family physician. Many a man in attempting to cheat the doctor out of a fee has cheated himself out of his life; aye, it is done every day. The best, safest, cheapest and more universally accessible mode of keeping the surface of the body clean, besides the once a week washing with soap, warm water, and hog's hair brush, is as follows:

As soon as you get out of bed in the morning, wash your face, hands, neck and breast; then, in the same basin of water, put your feet at once for about a minute, rubbing them briskly all the time; then with the towel, which has been dampened by wiping the face, feet, &c., wipe the whole body well, fast and hard, mouth shut, breast projecting. Let the whole thing be done within five minutes.

At night when you go to bed, and whenever you get out of the bed at night, or when you find yourself wakeful or restless, spend from two to five minutes in rubbing your whole body with your hands, as far as you can reach in every direction. This has a tendency to preserve that softness and mobility of skin which too frequent washing of the skin will always destroy.

That precautions are necessary in connection with the bath room is impressively signified in the death of an American lady of refinement and position, lately, after taking a bath soon after dinner; of Surgeon Hume, while alone in a warm bath; and of an eminent New Yorker, under similar circumstances, all within a year.—*Hall's Journal of Health*.

## POULTRY CHOLERA---SNAKE BITES, &amp;c.

**EDITORS SOUTHERN CULTIVATOR.**—In the article I offered you for your useful work, by the last mail, I omitted to state that, in the remedy for the fatal disease which has destroyed multitudes of Poultry along the seaboard, that after giving them Cayenne mixed in their food, and bleeding them under each pinion, if it does not relieve, we give them a teaspoonfull of the carbonate of ammonia three times a day, dissolved in whisky, which is one of the best remedies I have ever tried for Snake bite; by giving a tablespoonfull three times a day, applying a bottle of hot water pressed firmly on the wound, in the absence of a cupping-glass, as the poison can be seen ascending through the water, then apply a pallet of lint, well saturated with the tincture of ammonia; which has saved many of our most valuable hounds, and would be equally efficacious among our people bitten by rattlesnakes. When you reflect on the millions expended annually for poultry, any remedy suggested, through your interesting work, of practical effect, will be of intrinsic value to arrest the fatal disease to which they have been subject for two years past along the seaboard.

I send you two branches of an orange tree with two oranges and two blossoms, as most of our Orangeries have been ruined by the severe winter.

Referring you to my article, by last mail, I would remark that our cotton began to form for blossoming about the first week in June; and our corn is now tasseling.

We have had fine rains, while I observe in some places the crops are dying for want of rain.

Yours, respectfully,

W. W. H.

West Point, (St. Simon's Island,) June, 1857.

**GOUT IN FOWLS.**—*Editors Southern Cultivator.*—In the May number of the *Southern Cultivator*, a lady wishes to know what is a cure for the gout (as it is called with us,) that is so prevalent among Asiatic Fowls; but only when the cock is over three years old and useless; then they ought not to be allowed to run with healthy fowls. I would recommend their being banished from the Poultry Yard, and their place supplied with young cocks.

S. H.

Lynchburg, Texas, June, 1857.

## AGRICULTURAL CLUBS IN TEXAS.

**EDITORS SOUTHERN CULTIVATOR.**—Some of the citizens of Jackson county, Texas, have lately organized an Agricultural Club, which is entitled, I think, to a passing notice in your columns. Many of the cultivators of the soil in this county are men of fine abilities, and much public spirit; and there is no doubt that their movement will result in something useful to themselves and their country, and, perhaps, it may indirectly, in the end, prove of some little importance to the State. The rules of the Club are briefly as follows:

They meet once in two weeks, at the house of one of the members of the Club.

The forenoon is spent in examining the crop, garden, orchard, farming utensils, etc., etc., and discussing, as they pass along, the merits or defects of whatever they may be invited to inspect.

After dinner, the Club is in session for two or three hours, and some question or questions are discussed, in an easy, conversational manner, in relation to some agricultural matter upon which some member desires information.

The fine for absence is fifty cents, and when a member has paid two fines the secretary is authorized to take the money he has paid, and order a good agricultural paper to his address. (I think some of the fines will reach the office of the *Southern Cultivator*.)

The Club will institute new regulations as experience may direct.

Their meetings have, so far, been profitable and satisfactory. I hope Goliad, Victoria, and other neighboring counties, may follow the example of Jackson county. They should endeavor to improve upon the plan noticed in this article, and the citizens of this county will gladly adopt their improvements. The tillers of the soil can aid each other immensely in these associations. There are too many lights among them that are "hid under a bushel."

These associations may produce much sociability, as well as profit, amongst the farming community. It costs but little, and even if it cost much, the information that each would obtain from all the other members of the club, and by personal observation in examining all of his neighbors' crops, farming utensils, gardens, orchards, etc., in company with intelligent and observing farmers, would amply repay him.

Can you inform this Club, through your paper, how they can obtain the results of a correct chemical analysis of specimens of our different soils in this State—for instance, "stiff hog-wallow prairie," "sand prairie," "bottom prairie," "post-oak soil," etc.? How much of each specimen would it be necessary to send? What would be the cost of analyzing? D. D.

*Texana, Jackson County, Texas, June, 1857.*

[Our correspondent sends us the outline of a very excellent organization, and one calculated to effect much good in any agricultural community. We hope to see similar clubs formed in every neighborhood throughout the planting States. The different samples of the soil alluded to, may be put up separately in tight tin cases, numbered or labelled, and the whole enclosed in one box and sent, per express, to Prof. DANIEL LEE, Athens, Ga. We do not know the exact cost of making the analysis, but our senior will charge no more than the cost of the chemicals used, and a reasonable compensation for time and labor.—Ed.]

#### CHESS, OR "CHEAT"---CROPS IN JONES County---Vineyards, &c.

EDITORS SOUTHERN CULTIVATOR—Although I have been a subscriber to the *Cultivator* for the last twelve or fourteen years, I have never yet troubled the editors with communications, and if it does not trespass too much upon your time and patience, I should be much obliged if you would tell me what the enclosed is. It was found growing in a neighbor's field, where he had sown wheat two years in succession, and increases rapidly, and appears hard to get rid of. Is it what the Northern farmer calls chess, or cheat?—or is it simply a species of grass? The stalk resembles wheat very much, but does not grow so large.

Our grain crops are very fine, particularly wheat—in fact, the best I ever saw. Corn is generally small, but of a good healthy color, and with "seasons" will make an abundant supply. Cotton very sorry, and all of three weeks behind last year.

I have commenced a Vineyard, and am going to have fifty acres in vines another year; provided, I can get a suitable man to superintend them. I can easily make three hundred gallons Scuppernon wine per acre, but how much Catawba I don't know, as I have never seen the matter tested. My father has had a vineyard for a number of years, and sells all his wine very readily.

With great respect, yours, etc., B.  
*Clinton, Ga., June, 1857.*

[The heads sent us were the veritable chess, and "nothing else." It is a pest to the wheat field, and of no value for anything, that we are aware of. We have had several samples of it sent us by various persons, who supposed it to be some new "Rescue" or other grass, and anticipated valuable results from it. We believe strongly in vineyards everywhere in the South; and hope to see them dotting every hill-side ere long. Thousands of acres of land, now lying idle, may easily be made to produce a crop of grapes, worth ten times that of either corn or cotton; and either in the form of fruit or wine, the products of the vineyard always meet with the readiest sale.—Ebs.]

#### FARMING NORTH AND SOUTH.

A VERY intelligent and practical Pennsylvania farmer, who has purchased and is about to remove to a large farm in Southern Virginia, writes one of the editors as follows. His remarks are suggestive, and the deductions to be drawn from them plain and forcible. We, of the South, have, certainly, many great advantages over our Northern neighbors, and it is our own fault if we do not avail ourselves to the best advantage, and surpass them in all agricultural results:

EDITORS SOUTHERN CULTIVATOR—My brother-in-law and myself have purchased about two thousand acres of land in Southern Virginia, near the North Carolina line, and it has given me a much better idea of Southern farming than I ever had before. I see the great necessity of a few practical working men to be scattered over the Southern States to show these old planters *how to improve their land, crops, etc.* I have been almost tempted to write a few articles on farming at the North and South, for your paper, but being well aware that I had not the practice with the pen that many of your able correspondents have had, I felt as if I had better let it rest for some one more capable than myself to undertake the task. I have, also, found that if I tell them in Virginia and North Carolina what our success is at the North at farming, they cannot believe us until they come and see us; or some one of their own friends, that has seen our manner of farming, will certify to the correctness of the statements we make. What would they think if you were to tell them that you could raise, at the North, three tons of hay, forty bushels of wheat, one hundred bushels of corn, seventy-five bushels of oats, four hundred bushels of potatoes, and other crops in proportion, per acre, on good land, when well cultivated? I presume they would think you could never do so at the South. But I believe it can be done, if the season is favorable in many cases; but it will take time and labor to do it; and it can never be accomplished until the planter or farmer himself knows how to cultivate and improve the soil, as we cannot hire overseers to take interest enough to improve the soil as the owner would himself. I have frequently seen in Virginia and North Carolina plantations that would not produce five dollars per acre for the cleared land; provided, you sold all off the farm. At the North, I have had my place to produce over fifty dollars per acre yearly, which is quite a contrast.

I hope to be able to give you some little information how we succeed, from time to time, with our Northern farming at the South, as we have begun cultivating mixed crops, such as oats, corn, wheat, buckwheat, rye, broom-corn, etc., and commenced to seed down a portion of our land to grass for the use of our cattle, hogs, etc.

Yours, very truly, A. C.  
*Bucks County, Pa., June, 1857.*

To prove to our readers that our correspondent is not



one of those who "preach" but do not "practice," we subjoin the following brief sketch of his farm—truly a model one—from the *Pennsylvania Farm Journal*:

When approaching the farm, it requires but a casual glance to perceive at once, that everything is marked with the air and appearance of the progressive farmer, from the very entrance gate and lane, to every part of the extensive farm buildings. This becomes the more apparent however, when we are shown the means employed to conduct the very systematic arrangement that is necessary to produce the result so desirable. Barns of beautiful design, and particularly arranged for convenience and comfort, contribute greatly to harmonize with the other essential requisites of a well-managed farm. The ventilator on the apex of the main barn, permits the confined air and noxious effluvia evolved from the horse and cattle stables, to pass off without detriment to the animals, thus preserving a constant state of healthful respiration, highly conducive to their natural wants.

In proximity to the barn, may be seen the gigantic arms and wings of the self-regulating wind mill, rearing itself high in the air, and absorbing the power of the breeze to aid in alleviating the labors of the practical farmer, as well to afford him a perpetual supply of fresh water for his homestead and his stock. The threshing machine of improved pattern, is convenient to prepare his wheat and oats for the market, while the farmer's portable grain mill, is frequently in use, supplying all the necessary wants of the farm. Winter fuel is abundantly supplied by the aid of a power saw, thus avoiding the tedious and laborious process of sawing by hand. Spring, that genial season of bland invitations to the thrifty husbandman, finds him prepared with the latest improved tools to beguile the earth to yield her richest treasures. The improved plow, harrow, roller, limespreader, cultivator, etc., is now used with marked success, and when the ardent smiles of summer, warns him the "harvest is ripe," the stalwart arm is no longer needed to bow the grain and make the sheaves, but the sleek, well-fed horses from the barn, drive the reaper and mower with untiring zeal. But from this interesting theme our attention is directed to view the numerous stock of cattle, horses, swine, and poultry. These, also, bear evidence of a peculiar judgment, and plainly indicate the experience required to obtain a practical knowledge of these animals, best adapted to the wants of the thrifty farmer. Indeed, it was a striking fact, that all the stock from the symmetrical and beautiful form of the deep-milking, butter-producing cow of the dairy, to the improved porker, whose thrifty condition plainly acknowledged the source from which it derived, in part, its happy existence, had been selected with much care and attention, in order to conduce to the prosperity of the owner, etc.

#### RECLAIMING AN OLD FIELD---DEEP PLOWING, &c.

A correspondent of the *East Tennessean*, writing from Laurel Spring, under date of May 18, says:

MR. SWAN: Permit me to relate the following experiment in subsoiling, as related to me by a Mr. Lonis, who resides a few miles west of Knoxville, and spends a portion of his time and capital in supplying this vicinity in goods and groceries, on easier and better terms than we have had before. Mr. Lonis had an old field of 25 acres, the surface soil completely exhausted, he plowed and subsoiled twice and reached the depth of fifteen inches, and seeded in wheat, and says it now looks more vigorous, and bids fairer for a heavy yield per acre than he ever had on the best portions of his well-cultivated farm. I for one feel thankful to him or any other gentleman for trying to blot out such stains, as (old fields) in a christian and reading

community. An exhausted and worn-out field, with a limestone base and clay surface, if it has depth of soil, cannot be worn out, for if the clay, which rests upon the rock should be 50 feet, it will be more productive near the bottom on exposure than the top. I could cite you to hundreds of cases to prove this fact without chemical analysis. Look at the earth thrown from mines, wells, deep cut races, &c., after one winter's frost, it will give you a new species of herbs of luxurious growth. This is one point in regard to the true philosophy of deep or subsoil plowing, and yet there is another important point gained by deep cultivation. In an extreme cold winter, like the past, where wheat has been sown on shallow plowed lands it is much winter-killed for want of depth of root. I yesterday passed through a field of wheat, sown in corn, the last plowing of the corn was thrown hardly to the hill, and gave a deep loose bed near the bill. Now this wheat looks as if it had been drilled in rows 4 feet apart, all the centre being winter-killed, it could not get depth of root. Yours respectfully, CALVIN POST.

#### RENOVATING OLD LANDS.

EDITORS SOUTHERN CULTIVATOR—Please give the cheapest mode of renovating a poor sandy soil by turning under green crops, in your next No., for the information of your subscribers that cultivate poor sandy land. How would the following process do for improvement, in the absence of manures, such as guano, poudrette, &c., to be applied, viz: on stubble land, or land that has lain idle this year? To sow and turn under peas with the green vegetable matter that is growing upon it in the fall; sowing it down with wheat for next year's crop. Or sowing it down with rye, to be turned under next spring for planting a corn crop. Will such a course, aided by such manure as can be raised on a small farm, and a regular rotation of corn, wheat and peas, improve the soil and make it productive? I find by experience that scattering pine straw, leaves, &c., over the land and burning it off previous to sowing wheat, or planting corn, has a very marked effect in improving the crop, and, when conveniently obtained, to haul into the field, will pay well on light sandy soils. My method for wheat is to scatter in the morning as much as can be plowed in the next day. After sunset I burn it off, it becomes cold by morning, and the dew damps it sufficiently to stick the ashes to the ground and prevent the wind from blowing them away next day while being plowed in. And for corn, I open a deep furrow, and fill it full from end to end, burn off and turn two furrows on the ashes as soon as they become cool enough for a horse to walk, then either drill or check, planting the corn on the ashes, thus covered up. In the absence of manure this is a good method on light sandy soils. Would such soils be benefitted by subsoiling? Would portions of sandy soils around swamps and in hollows that are of a close, loamy quality, with a subsoil inclining to clay, and that sometimes, or in some places seems to be dead and unproductive, be improved by subsoiling? Would portions of low sandy land, inclining to be moist, with (in some spots) large portions of the oxide of iron, be benefitted by subsoiling; the application of lime, or gypsum; and what quantity per acre? Would any of the above qualities of land be benefitted by sowing down with grass and pastured? And what kind would suit the different soils best? Yours, most respectfully,

Sawyer's Mills, S. C., June, 1857.

S. D.

[The course indicated by our subscriber, viz: manuring and deepening the soil, lies at the bottom of all agricultural improvement, and if he follows out faithfully the different plans he suggests he cannot fail to be remunerated by a vast increase of product from his lands. There

are few, if any, lands which are not benefitted by sub-soiling—plaster or gypsum is an excellent top dressing for growing crops of Peas, Clover, &c., and lime aids greatly in decomposing green manures and preparing them to feed other plants.—Eds.]

**PROPAGATION OF FISH.**—An interesting report on the artificial propagation of Fish, made to the Massachusetts Legislature, by the Commissioners appointed last year, embodies a great number of useful facts. The conclusions of the report are as follows:

"That the artificial propagation of fish is not only practicable, but may be made very profitable; and that fresh waters may thus be made to produce a vast amount of excellent food; that a small outlay of capital and a moderate degree of skill, aided by such information as can be derived from books that any man can procure, will enable the proprietors of small streams and ponds to stock their own waters; that in respect to the larger streams and ponds a combination of individuals may be necessary, with such legislation as is adapted to each particular case, and guarding the rights of all persons interested in the waters—especially when they have been applied to mechanical purposes."

**WHAT WILL GIVE A HORSE AN APPETITE.**—*Editors Southern Cultivator*—I have noticed a good deal said about the diseases of horses—Blind Staggers, Botts, &c.—in the *Cultivator*. Now if you, or any of your subscribers, can tell what will give a horse an appetite, I hope they will be good enough to make it known through your valuable *Cultivator*. I hear a great many farmers complaining, saying their horses would not eat. Mine has been so for the last month that they will scarcely eat any corn. If you can give any information it will be thankfully received. Yours, &c., E. A. M.

Providence, N. C., 1857.

## Advertisements.

**NEW WORK!—NOW IN PRESS!!**

**SORGHO AND IMPHÉE.**

**THE CHINESE AND AFRICAN SUGAR CANES.**

**A** COMPLETE Treatise upon their Origin, Varieties, Culture and Uses, their Value as a Forage crop, and full Directions for Making Sugar, Molasses, Alcohol, Sparkling and Still Wines, Beer, Cider, Vinegar, Paper, Starch and Dye-Staffs.

FULLY ILLUSTRATED WITH DRAWINGS OF APPROVED MACHINERY;

With an Appendix by LEONARD WRAY, of Caffraria; and a Description of his Patented process for Crystallising the Juice of the Imphee; with the latest American Experiments, including those of 1857 in the South. By HENRY S. OLCOTT. To which are added Translations of valuable French Pamphlets received from the Hon. Jno. Y. Mason, American Minister to Paris.

Price One Dollar,

Sent by mail post-paid. Orders taken immediately. Those first received will be first filled.

C. M. SAXTON & CO.,  
Agricultural Book Publishers,  
140 Fulton st., New York.

Aug57—2t

"Think of Living." New Volumes.

**OUR ILLUSTRATED FAMILY JOURNALS.**

**LIFE ILLUSTRATED;** a First Class Pictorial Family Paper, devoted to News, Literature, Science, the Arts; to Entertainment, Improvement, and Progress. A large, handsome quarto. Published weekly at \$2 a year. \$1 for half a year.

New Volumes of the following Journals begin with the July numbers:

**THE WATER-CURE JOURNAL;** devoted to Hydropathy, its Philosophy and Practice; Physiology, Anatomy, and the Laws of Life and Health. Illustrated, Monthly, \$1 a year.

**THE PHRENOLOGICAL JOURNAL** gives Practical Instructions to Learners, with Directions for the Cultivation and Improvement of Mankind. Illustrated. \$1 a year.

For Three Dollars, all three Journals will be sent a year. Address  
FOWLER & WELLS,  
308 Broadway, New York.

Aug57—2t

## VALUABLE FARM FOR SALE IN CHEROKEE Georgia.

**T**HE subscriber wishing to get to retired situations offers his FARM for sale, situated on the Western and Atlantic R. R. at Catoosa Passenger Depot at equal distance from Catoosa Springs and the flourishing town of Ringgold.

The Farm contains 450 acres of good land; two hundred in a high state of cultivation; a good two-story Dwelling well finished, with six comfortable rooms; fire place in each; a good double Barn 64 by 32 feet, with a good horse power for a threshing and other machinery; large and commodious frame Stables and Cribbs, &c. The Farm is well calculated for a grazing farm, having water in all the fields and lots, a fine bold running spring convenient to the house, of never-failing limestone water, with several other good springs on the place. Also, a most desirable Apple Orchard: in fact one of the most desirable situations in all North-western Georgia.

TERMS.—O e-half in hand; balance in one and two years, with interest from date.

Persons desirous to purchase would do well to call on, or address me soon. Possession given first of January.

R. A. RAMSEY.  
Aug57—3t\*

Ringgold, Ga., July, 1857.

## SOUTHERN PLANTERS!

Encourage your own Manufactures, which are now languishing for want of your support.

**I** TAKE this method of informing Planters that I am still manufacturing at Belleville Factory, Augusta, Georgia, a first rate article of NEGRO CLOTH, made of strong, double well twisted cotton warp and pure wool filling, which I warrant as a faithful article, and to wear longer than any Northern goods.

Being one of the pioneers in manufacturing in Georgia, I have had to struggle against a fierce competition from the Massachusetts manufacturers—for their skill could put a good face on an inferior article, which they could sell nominally cheaper than I could a faithful article. Hence, merchants as well as planters, refused to encourage Southern enterprise, because Northern goods were offered at a few cents per yard less, overlooking the vast difference in the quality of the material used. Is not now the time for planters to encourage Southern manufactures, and make us independent of the North, especially when goods are offered at a reasonable price, and of a quality that will give satisfaction.

All orders will be filled in their turn, and forwarded as directed; on receipt of the goods, an order on your factor, or your note payable 1st of January, will be satisfactory. At the prices mentioned below, the goods will be delivered in Augusta and forwarded as directed.

Extra Heavy Twills.....42 cents, 30 inches wide.  
Heavy Plain.....32 " 30  
Wool will be taken in exchange for goods, at 20 cents per pound for unwashed, free of burrs; or 30 cents for clean washed—the wool to be delivered in Augusta. If there are burrs in it, the weight of burrs deducted. I will pay freight on the wool and deduct it when settling for it. It can be sent to S. H. Oliver, my agent at Augusta, and the goods will be forwarded promptly on receipt of the wool.  
GEORGE SCHLEY.

Aug57—1t

## GRAPE CULTURE--VINEYARDS--WINE!

**T**HE subscriber will receive and fill orders for Cuttings and Rooted Vines of the Catawba Grape, from one dozen to thousands. He will furnish either Southern Cuttings and Vines from the Vineyards of Mr. CHARLES AXT, and his own Nursery, or Western Cuttings and Vines from Circinnati, at a reduced rate. The Isabella, Warren, Scuppernon, and other hardy Grapes, also supplied; in addition to a choice collection of the finest Foreign varieties, such as Black Hamburg, Muscat of Alexandria, Cannon Hall Muscat, Black Morocco, Syrian, &c., &c. Early orders solicited.

Full and complete Descriptive Catalogues of Fruit Trees, Vines, Roses, Shrubs, Evergreens, &c., with hints on culture, sent free of postage to all applicants. Address:

D. REDMOND, Augusta, Ga.

"Fruitland Nursery," August, 1857—1t

## FRESH TURNIP SEED.

**T**HE subscribers have obtained from uncontroverted sources fresh seeds of the following varieties of the TURNIP:

Skirving's Ruta Baga.

Large English Norfolk,

Large White Globe,

Large Flat Dutch,

Large Red Top.

Put up neatly in 1 lb. and ½ lb. papers; and the trade supplied on reasonable terms.

Aug57—3t

PLUMB & LEITNER,  
Augusta, Ga.

## AUGUSTA SEED STORE.

(Nearly opposite the United States and Globe Hotels.)

**T**HE subscriber has received his regular supply of Turnip and other SEEDS for the season, which are fresh and genuine;

Purple Top Ruta Baga Turnip,

Large English Norfolk Turnip,

Large G1 be Turnip,

Early Flat Dutch Turnip,

Red Top Flat Turnip,

Yellow Aberdeen Turnip.

Aug57—1t

J. H. SERVICE.

## C. M. SAXTON &amp; CO., AGRICULTURAL

Book Publishers,

NO. 140 Fulton street, New York, have recently purchased the plates and right to print the following Standard WORKS. We invite orders for the same upon our usual terms:

Dadd's Anatomy and Physiology of the Horse, plain, \$2; colored plates \$4. With Anatomical and Questional Illustrations; containing, also, a series of Examinations on Equine Anatomy and Philosophy, with illustrations in reference to Dissection, and the mode of making Anatomical Preparations; to which is added a Glossary of Veterinary Technicalities, Toxicological Chart, and Dictionary of Veterinary Science.

Dadd's Modern Horse Doctor, \$1. Containing Practical Observations on the Causes, Nature and Treatment of Diseases and Lameness of Horses. With illustrations.

Waring's Elements of Agriculture, 75 cents. A book for young farmers, with Questions for the use of schools.

Hyde's Chinese Sugar Cane, 25 cents. Containing its History, Mode of Culture, Manufacture of the Sugar, &c.; with Reports of its success in different parts of the United States.

Cole's American Fruit Book, 50 cents. Containing Directions for Raising, Propagating and Managing Fruit Trees, Shrubs and Plants; with a Description of the best varieties of Fruit, including new and valuable kinds.

Cole's American Veterinarian, 50 cents. Containing Diseases of Domestic Animals, their Causes, Symptoms and Remedies; with Rules for Restoring and Preserving Health by good management, also for Training and Breeding.

Schenck's Gardener's Text Book, 50 cents. Containing Directions for the Formation and Management of the Kitchen Garden, the Culture and Use of Vegetables, Fruits and Medical Herbs.

Leuchars on Hot Houses, &c., \$1.25. A Practical Treatise on the Construction, Heating and Ventilation of Hot Houses, including Conservatories, Green Houses, Graperies, &c., with Directions for their management, in regard to Light, Heat, Air, &c.; illustrated with numerous Engravings.

Breck's Book of Flowers, \$1. In which are Described all the various Hardy Herbaceous Perennials, Annuals, Shrubs, Plants and Evergreen Trees, with Directions for their Cultivation.

Field's Pear Culture, 60 cents. The Pear Gardener; or a Treatise on the Propagation and Cultivation of the Pear Tree, with Instructions for its Management, from the Seedling to the Bearing Trees. By Thomas W. Field. Aug57—1t

## MISSISSIPPI FRUIT TREES.

THE undersigned offers for sale, at Columbus, Mississippi, a good assortment of APPLES, including the best early medium and late winter varieties, from all parts of the Union. PEARS, a choice collection, consisting of over eighty different varieties, a heavy assortment of Dwarf of bearing age and size. PEACHES, over two thousand trees ripening in succession, from June until October. PLUMS, a good assortment, including seven varieties; also, PRUNES, for drying. APRICOTS and NECTARINES, about one hundred and fifty varieties. GRAPES, a few very choice vines of good size, consisting of Isabella, Malaga, Catawba and Mustang, a Texas native.

All orders for the above, amounting to over fifty dollars, from adjoining counties, will be delivered in Starkville, Macon, Crawfordville, and Aberdeen, free of charge for transportation. August, 1857—3\* JAMES JONES, JR.

## PLANTATION IN SOUTH-WESTERN

Georgia For Sale,

SITUATED on the east side of Flint River, 10 miles below Albany, the river forming the Western boundary, containing 1,346 acres (more or less) first quality PINE LAND. Between 500 and 600 acres are in cultivation, all of which is fresh, none of it having been cultivated more than 4 years. Thirty or forty acres will comprise all the waste land on the plantation. The improvements are a good Gin House, Overseer's House, C. ibs, Negro Houses, etc.

The ill health of the proprietor is his reason for wishing to sell. Apply to S. H. HARRIS, on the Plantation, or E. B. BALLOU, Quincy, Fla.

Possession given 1st January next.

Albany, Ga., March 27, 1857.

Aug57—5\*

## NEW CROP TURNIP SEED.

JUST received from the importers a full supply of the Large White Flat, Large Globe, Norfolk, Hanover, Ruta Baga, and the Yellow Aberdeen TURNIP SEED, for sale wholesale and retail. W. H. HAINES, Augusta.

Orders from the country attended to with dispatch. July57—3t

## FIRST-CLASS FAMILY JOURNALS.

LIFE ILLUSTRATED: A First-Class Pictorial Paper, weekly \$2 a year; \$1 for half a year. WATER CURE JOURNAL: Devoted to the Laws of Life and Health. \$1 a year. PHRENOLOGICAL JOURNAL: Devoted to the Improvement of Mankind. \$1 a year. The three Journals sent 1 year for \$3. Address FOWLER & WELLS, No. 303 Broadway, New York. Aug57 2t

## SHEEP FOR SALE.

ONE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS, of the Webb stock. June56—1t RICHARD PETERS, Atlanta, Ga.

## IMPORTANT TO PLANTERS.

THE RICHMOND FACTORY (Richmond county, Ga.) continues to MANUFACTURE WOOLEN CLOTH, at 12½ cents per yard—finding every material except the Wool. The extensive and constantly increasing patronage the Factory has enjoyed for years past, assure the proprietors that the article of Winter Clothing for Negroes made by them, has not been surpassed by any cloth made North or South.

Recent extensive improvements and additions not only enable us to keep up the standard of the Goods, but to secure an early delivery of the same.

Planters or others, who may desire to avail themselves of this opportunity and secure a first rate article at a moderate cost have only to send us the Wool washed clean in cold water (if sent dirty one-half a cent per yard extra will be charged for washing.) Burry Wool is not objectionable—the Burrs are removed by machinery.

The name of the owner should be marked on all packages sent us. Wool sent by any of the Railroads in Georgia, Alabama or South Carolina, to the Augusta Depot, marked Richmond Factory, (and owner's name also,) will be regularly and promptly received, and the cloth when made, returned to the points directed. Each parcel is made up in the turn received, hence an early delivery is always desirable. All instructions to June57—6t W. I. SCHLEY, President, Augusta, Ga.

## 'FRUITLAND NURSERY,' AUGUSTA, GA.

IMPORTANT NEW ARRANGEMENT.

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which number many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen or buds of M. BERCKMANS contain all the best and rarest variety of other fruit known in Europe and America, from which we shall cull every thing of special merit. It is not our object to multiply varieties, but to select, with the greatest care, the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, Roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at very moderate prices.

Full Descriptive and Price Catalogues, sent post paid to all applicants. Address, L. RICHMOND, Augusta, Ga. April57—tf

FRUIT AND ORNAMENTAL TREES, including EVERGREENS, the finest collection in the Union, 1,700 lbs. Chinese Sugar Cane, and also, parcels of 8000 Seeds, post-paid, for \$1.25. Chinese Imperial Rice White Potatoes, the most valuable of Esculents—the only ones for sale of American growth, at \$3 per dozen—\$5 per 20—\$20 per 100. Osier Willows—3 in st kinds—\$2 to \$5 per 1000. Lawton Plackberry \$18 per 100—\$2 per doz. Grapes, Gooseberries, Raspberries and Currants at lowest rates. Linnaea and Victoria Rhubarb \$5 per 100. Arbor Vitae, small for Hedges, and large sizes. All Evergreens of small sizes for Nurseries. All the new native Grapes. Tree and Shrub, Vegetable, Flower and Evergreen Tree Seeds. Earth Almonds, Yellow and Honey, Locust and Osage Orange Seeds. Strawberries—20 splendid market varieties—\$1 to \$2 per 100.

Priced Catalogues of every Department sent to applicants who enclose stamps. W. R. PRINCE & CO. Flushing, N. Y. May57ft

## NATIONAL AGRICULTURAL AND SEED

Warehouse.

NO. 251 Pearl street (between Fulton and John streets), New York.

TREDWELL & JONES, Manufacturers, Importers and Dealers in all kinds of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and MACHINERY for Plantation use, invite the attention of Dealers and Planters to their large assortment of Implements expressly adapted for the South—comprising upwards of ONE HUNDRED and FIFTY different styles of PLOUGHS and Plough Castings, and patterns for Casting all kinds of Plantation Machinery.

FERTILISERS, FIELD and GARDEN SEEDS.

Any Implements, Castings or Machinery manufactured to order, at short notice, in a superior manner. May57—tf

## SORGHO SACCHAROMETERS.

THE Subscriber has a number of these Instruments—invented and each one proved by himself—which will be furnished to any who may desire this indispensable guide to the inexperienced in SYRUP MAKING.

Full directions accompany the instruments. Price \$3, and 10 postage stamps when sent by mail.

ROBERT BATTEY, M. D.

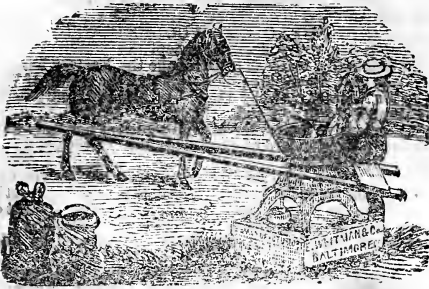
Rome, Georgia.

July57—3t

## SOUTHERN CULTIVATOR FOR 1856,

BOUND volumes of the SOUTHERN CULTIVATOR for 1856, may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address, WM. B. JONES, Augusta, Ga.

## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and MAYNOR'S "CHAMPION."

- The Manufacturers of the "Young America" claim for this Mill:  
 1st. That it will crush Corn and Cob; also, grind fine Meal.  
 2nd. That the entire grinding surface can easily be replaced at a small cost.  
 3rd. That it has an extra set of fine and coarse plates.  
 4th. That it deposits meal in a box or bag.  
 5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.  
 6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding parts lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf

H. & J. MOORE & CO.

### PLANTATION AND GARDEN Fertilizers.

THE Subscriber has constantly on hand the following concentrated MANURES, a single trial of which will prove to the most incredulous their value as a restorer of fertility to worn out soils and their adaptation to increasing largely the products of the Garden and the Orchard.

Numerous testimonials from gentlemen who tried them last season have been received, all of whom concur in saying that their experiments were satisfactory and profitable beyond their anticipations:

PHOSPHATED GUANO.—In barrels of about 250 lbs., at 2 cents per lb.

SUPER PHOSPHATE OF LIME.—In barrels of about 250 lbs. at 2 cents per lb.

COARSE GROUND BONES.—In barrels about 175 lbs. at 1½ cents per lb.

FINE GROUND BONES.—In barrels of about 200 lbs., at 1½ cents per lb.

PERUVIAN GUANO.—In sacks of about 140 lbs., at 2½ cents per lb.

POUDRETTE, or de-odorized Night Soil, in powder \$1.75 per barrel.

LAND PLASTER.—At \$1.75 per barrel.

Also, ROCK SALT, in barrels of about 300 lbs. at 1 cent per lb.

Orders by mail or otherwise promptly attended to. A pamphlet, containing further particulars and directions for using the above fertilizers will be sent by mail, on the receipt of postage stamp, to any one desiring it.

August56—1y

D. G. LOWBER,  
98 Magazine st., New Orleans.

### LANDS IN SOUTH WESTERN GEORGIA For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany by 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

Albany, Ga., Oct. 10th, 1856.

W. W. CHEEVER,  
Nov56—tf

### GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address

May56—tf

WM. N. WHITE,  
Athens, Ga.

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, and all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

#### PRICES.

2½ Horse Power.....	\$375
4 do. do. ....	500
6 do. do. ....	700
8 do. do. ....	900
10 do. do. ....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

Feb57—1y

D. C. LOWBER,

98 Magazine St., New Orleans.

### STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Somerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska;" a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glenoe, 4 years old.

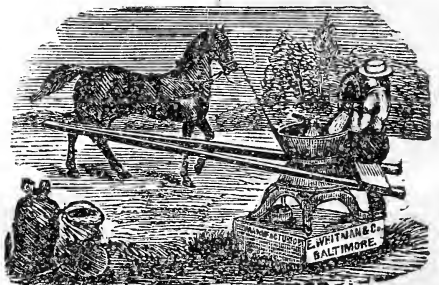
Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

June56—tf

JAMES R. FERGUSON,  
Memphis, Tenn.

### YOUNG AMERICA CORN AND COB MILL. The Cheapest and best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

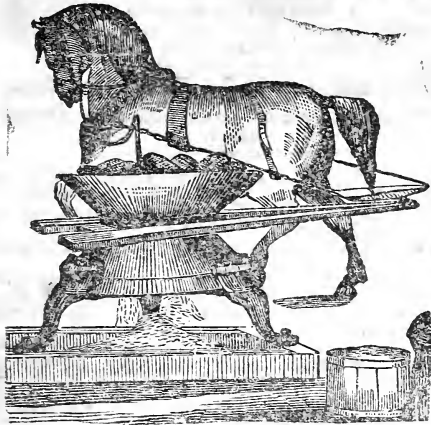
Planters are invited to examine the Mill and compare its advantages.

March—tf

JOHN & THOS. A. BONES.



# SCOTT'S LITTLE GIANT CORN AND COB Mill Improved.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials by SCOTT, MOCK-BEE & CO., under the immediate supervision of the Patentees.

**CARMICHAEL & BEAN GENERAL  
AGENTS, AUGUSTA, GA.**

THE attention of Planters and Stock Feeders is respectfully called to this MILL, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required; it being only necessary to fasten them down to a floor or platform, and for this purpose the requisite screws and a printed card of directions will accompany each mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over-heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium wherever exhibited; and we challenge the patentees, manufacturers and agents of all other Mills, to produce proofs of its ever having been equalled at any trial conducted by disinterested persons and on fair terms. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These mills are guaranteed against defects or breakage, when used according to the directions and as evidence of their durability, a No. 2 Mill, which has ground nine thousand bushels, and a No. 3 Mill, which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold at \$50. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession official written and printed testimonials which we will gladly exhibit to persons wanting mills, showing and proving the superiority of the Little Giant over all others:

## TESTIMONIALS.

AUGUSTA, GA., April 3, 1855.

I have been running one of SCOTT'S LITTLE GIANT CORN AND COB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour. But I have ground over thirty-five bushels in an hour and a half, or equal to twenty-three and half bushels per hour. In feeding thirty horses I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of crusher ever got up and if I could not replace mine, I would not sell it for five hundred dollars.

I. D. MATHEWS,  
Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20, 1857.

Messrs. CARMICHAEL & BEAN—GENTS.—After having used the Little Giant constantly for two years, I cheerfully confirm every statement made in my certificate of the 3d of April, 1855.

I. D. MATHEWS.

BEECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta, Ga.—GENTS.—I have

had a No. 3 Little Giant in constant use for the last two years, and have fed my stock entirely on Corn and Cob Meal. I have never worked my horses and mules harder than during this time, and they have never been in better condition than they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent by using the mill. I am acquainted with several kinds of crushers, but consider the Little Giant far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—GENTS.—We are using the Little Giant Corn and Cob Mills, which we bought from you, and hereby recommend them to Planters and Stock Feeders as the most simple and durable, the most easily propelled, and best crushers we have ever seen, and by the use of which we believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.  
(Dr. Crawford has two mills in use.)

A. J. RAMBO, Edgefield District, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTUP, Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GODDE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

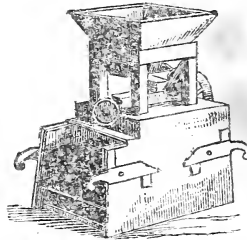
PORTER FLEMING, Augusta, Ga.

JAMES TORREY, Lexington, Miss.

May 57—tf

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



**FELTON'S  
PATENT  
PORTABLE GRAIN MILL.**

TROY, N. Y.

FOR grinding all kinds of Grain, including Corn and Cob, and adapted to the use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Planter, it is destined to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. It is very simple in construction,—the grinding surfaces are of the most durable character, and are Self-Sharpening, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost,—and the price comes within the reach of every Planter and Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is capable of grinding three bushels per hour with one horse power, and from six to eight bushels with two horse power; it grinds sufficiently fine for family use, and does not heat the meal—a most valuable feature.

The perfecting of this mill is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. Numerous testimonials, in its favor have been received and will be cheerfully exhibited to all.

All orders for Mills, Communications, &c., will be promptly attended to, and should be addressed to the Agent.

May 57—tf

D. CHAFFEE, Augusta, Ga.

## FRUITLAND NURSERY, AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc., forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing

D. REDMOND, Augusta, Ga.

Dec 56—tf



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EVERGREENS AND ORNAMENTAL TREES  
for the South.

A FEW rare and beautiful EVERGREENS, Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embraces the Decodar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir Silver, Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vitae; Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c, &c.; in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address, [Dec56—tf] D. REDMOND, Augusta, Ga.

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also, four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will sell a Buck and three Ewes for \$100, if applied for prior to the 1st of January next. RICHARD PETERS,  
Dec56—tf Atlanta Ga.

## STANFORD'S WILD OAT GRASS.

I AM prepared to furnish SEED of the above Grass the present year, it will be carefully put up and marked, and sent to the depot of Georgia Railroad at Athens, or to an Express Company there, free of charge to Athens, at \$20 per bushel. The quantity of seed to the acre, should be two bushels. But half as much will answer for those who wish to raise their own seed hereafter.

Clarksville, Ga., May 13th, 1857.

JOHN R. STANFORD,  
June57—3t

## SORGHO SACCHAROMETERS.

THE Subscriber has a number of these instruments—invented and each one proved by himself—which will be furnished to any who may desire this indispensable guide to the inexperienced in SYRUP MAKING.

Full directions accompany the instruments. Price \$3, and 10 postage stamps when sent by mail.

July57—3t

ROBERT BATTEY, M. D.,  
Rome, Georgia.

1857!

## SOUTHERN CULTIVATOR,

A MONTHLY JOURNAL,

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Fifteenth volume commences in January, 1857.

## TERMS:

ONE COPY, one year.....\$1 | TWENTY-FIVE COPIES..\$20  
SIX COPIES, ".....5 | ONE HUNDRED COPIES.. 75

ALWAYS IN ADVANCE. No paper sent unless the cash accompanies the order.

The Bills of all specie-paying Banks, and Post-Office stamps received at par.

Remittance, by mail (post paid) will be at the Publisher's risk.

ADDRESS WM. S. JONES, Augusta, Ga.  
Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

PURE DEVONS AND GRADE DEVONS  
For Sale.

FOR sale the thorough-bred North Devon BULL CALF "Southerner," 5 months old, of fine form and proportion. Sire Keokuk (prize bull), and dam, "Lively Dame;" both first class animals of undoubted pedigree.

Also, a pair of CALVES (heifer and bull) 5 months old, sired by the above Bull (Keokuk) and from excellent Short Horn or Durham Cows. For terms, &c., address

June57—tf

D. REDMOND, Augusta, Ga.

## GEORGIA RAILROAD.



## CHANGE OF SCHEDULE.

## PASSENGER TRAINS.

LEAVE Augusta, daily at 6 A. M. and 5 P. M.  
Arrive at Augusta daily at 5 A. M. and at 6 P. M.  
Leave Atlanta daily at 8.50 A. M. and 6.15 P. M.  
Arrive at Atlanta daily at 2.50 A. M. and at 3.36 P. M.

## CONNECTING WITH ATHENS BRANCH.

Arriving and leaving Union Point daily (Sundays excepted) at 10 A. M. and leaving at 2.30 P. M.

## WITH WASHINGTON BRANCH.

Arriving at Cumming daily (Sundays excepted) at 9 A. P. M.  
Leaving " " 3.30 P. M.

## WITH SOUTH CAROLINA TRAINS.

Leaving Augusta daily at 9.20 A. M. and 9.50 P. M.

Arriving at Augusta daily at 3 P. M. and 4.30 A. M.

## WITH ATLANTA AND LA GRANGE RAILROAD.

Leaving Atlanta daily at 3.30 A. M. and 4.45 P. M.

Arriving at " 7.55 A. M. and 5.35 P. M.

## WITH WESTERN AND ATLANTIC RAILROAD.

Leaving Atlanta daily at 9 A. M. and 6 P. M.

Arriving at " 3 A. M. and 3 P. M.

GEO. YONGE, General Superintendent.

July 14th, 1855.

Aug55—tf

## CENTRAL RAILROAD.



## CHANGE OF SCHEDULE.

ON and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

## BETWEEN SAVANNAH AND MACON.

Leaves Savannah Daily at...5.00 A. M. and 12.15 P. M.

Arrive in Macon " ...2.15 P. M. " 1.00 A. M.

Leave Macon " ...11.45 A. M. " 9.30 P. M.

Arrive in Savannah " ...10.45 P. M. " 7.20 A. M.

## BETWEEN SAVANNAH AND AUGUSTA.

Leave Savannah.....12.15 P. M. and 9.30 P. M.

Arrive in Augusta.....8.45 P. M. " 5.30 A. M.

Leave Augusta.....6.00 A. M. " 4.00 P. M.

Arrive in Savannah.....1.30 P. M. " 10.45 P. M.

## BETWEEN MACON AND AUGUSTA.

Leaves Macon.....11.45 A. M. and 9.30 P. M.

Arrive in Augusta.....8.45 P. M. " 5.30 A. M.

Leave Augusta.....6.00 A. M. " 4.30 P. M.

Arrive in Macon.....2.15 P. M. " 1.00 A. M.

## BETWEEN SAVANNAH, MILLEDGEVILLE &amp; EATONTON.

Leave Savannah.....5.00 A. M.

Arrive in Milledgeville.....2.45 P. M.

Leave Macon.....11.45 A. M.

Arrive in Eatonton.....5.00 P. M.

W. M. WADLEY, Gen'l Superintendent.

Savannah, Ga., Oct., 12, 1855.

July56—tf

## BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address

Nov55—tf

R. PETERS, Atlanta, Ga.

# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE,

VOL. XV.

AUGUSTA, GA., SEPTEMBER, 1857.

NO. 9.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M. D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH--SEPTEMBER.

#### THE PLANTATION.

As soon as *Cotton* begins to open freely, it must be gathered without delay. Avoid picking immediately after a shower, lest the lint should be dirty. See that your Gin and Press are in complete order, and send no cotton to market that has not received the most careful handling throughout.

*Cow Peas* should be gathered and put away during the brief intervals of leisure from cotton picking. The vines of late planted Peas may also be cut when the pod is just forming, and cured for hay. Carefully save seed of the *Chinese Prolific Pea* and other valuable sorts.

*Corn* may be cut up and saved as directed in our last number, page 233.

*Winter Oats, Rye, Barley, Clover and Lucerne* may be sown the latter part of this month.

*Turnips* for a fall crop, must now be sown, without delay. *Ruta Baga, Yellow Aberdeen, Norfolk, Early Flat Dutch, Globe, and Strap Leaf Red Top Turnips*, are all valuable varieties—the two first being the best for stock and keeping. See directions for sowing Turnips, in our last.

*Hay*.—In addition to the Corn-stalk and unprilled fodder spoken of in our last (page 233), Sweet Potato vines and the tops of Pinders make a tolerable rough forage, if cut and cured before they begin to wither. All Crab, (or Crop) Grass, Crowfoot and other grasses must be cut when in blossom, and carefully cured, with as little exposure to the sun as possible, to be of any value for hay. The dried up and withered grass often pulled for hay late in the season, is almost utterly valueless.

*Wet land* may now be drained, woodlands prepared for pasturage, weeds and brush grubbed up, &c., &c., as directed heretofore.

*Winter Forage*.—As a green crop, try *Wheat*, sown thick in three foot drills, on deeply plowed and rich land. It will give your animals green food nearly all winter, bearing repeated cuttings.

#### THE GARDEN.

*Turnips*, of all kinds, if not already sown, must be put in without delay. (See directions in August number, in regard to this and other gardening operations.)

#### STRAWBERRY BEDS

May now be prepared and the plants set out any time during the fall or winter. A cool moist soil, rich in vegetable matter, suits this fruit best, in our sultry climate. Spade or trench-plow the ground as deeply as possible, turning under a plentiful supply of swamp muck, decomposed leaves, wood ashes, pulverized charcoal, and a little well rotted stable manure. Harrow or rake the surface until it is perfectly fine and even, and set your plants in 3 foot rows, 1 foot to 18 inches in the row. When the plants are well rooted, cover the entire surface of the ground with partially decomposed forest leaves, only permitting the plants to be exposed. By this method, with an occasional watering next summer, in dry weather (and the proper selection of varieties) this delicious and healthy fruit may be raised abundantly from 3 to 5 months in the year, for family use and for market. It can be safely transported 300 miles per railroad, and has even been sent from Georgia to New York, in excellent condition. It is, in all respects, one of our most attractive and profitable fruit crops, and we hope it will receive increased attention hereafter. Some of the choicest varieties are *Early Prolific, Hovey's Seedling, McAvoy's Superior, Longworth's Prolific, Walker's Seedling, Peabody's Hautbois, Crimson Cone, Wilson's Albany, Lucy Fitch, McAvoy's Extra Red, the Crescent Seedling, Black Prince, Inca, Jenny Lind, Scott's Seedling, Trollope's Victoria, Boyden's Seedling, Smythe's*, and other varieties, are also valuable for amateurs.

#### THE FRUIT ORCHARD.

*New land*, elevated and not too rich, is most suitable for Orchards, and to those who have neither the time or means to grub up and entirely clear the ground before planting, we suggest the following plan for speedily replacing a forest with a productive Peach or Apple orchard: Cut off all wood and brush very clean, early in the fall, burning to ashes all the logs that you cannot remove, and leaving all stumps very low. Then stake off your land the proper distances, and dig holes six feet across and two feet deep, throwing the surface mould on one side and the subsoil on the other. Rake into the bottom of the hole a bushel or more of the surrounding loose, top soil, leaves, &c.—fill up to the proper height with the surface soil first thrown out, and plant your tree carefully, heaping up the subsoil slightly about the trunk and over the roots, to allow for the natural settling of the earth. Your tree being now planted and furnished with a supply of food in the hole, immediately within its reach, the after-cul-

ture may be as follows: The first spring, early, plow and cross-plow the young orchard with long rooters, keeping beyond the holes in which the trees are planted, and carefully avoiding all injury to the trunk or branches. Sow *Cow Peas* broadcast in the open spaces between the trees, and keep the earth loose and mellow about the roots with a pronged hoe. If *mulching* material can be obtained, apply it thickly after the first hoeing, as far as the roots of the trees extend. This will obviate the necessity of any further working for the season. When the *Peas* ripen, pick and save them, turning the vines under and sowing another crop, to be gathered in the same manner. These repeated plowings and cross-plowings, with the abundant supply of nutritive matter furnished by the decomposing *Pea* vines, and an occasional dressing of ashes, will insure the most vigorous and healthy growth of the trees, and force them into early and prolific bearing. Other low crops, such as Sweet Potatoes and Pindars, may afterwards be grown profitably in the orchard, and the vines returned to the soil as above recommended. We confidently recommend a trial of this plan to those who desire the quickest and most satisfactory return for their labor in Fruit Raising, and who have no old land elevated enough, or otherwise suitable. *November* and *December* are the best months for planting trees. Particular directions for planting Trees, Grape Vines, &c., in our next.

### MILK.

EDITORS SOUTHERN CULTIVATOR—Milk is produced from the females of all warm-blooded animals which are enumerated among the manumalia; milk contains every element of nutrition necessary to animal existence; and man can subsist, with unimpaired health and strength, if limited to this food alone, and from time immemorial milk has been recognized as an article of food.

There is said to be a tree on the coast of Venezuela, called the *Palo de Vaca*, or Cow Tree, the sap of which much resembles milk. Baron Von Humboldt and Bonpland say they drank considerable quantities of it, and describe it as thick, glutinous, perfectly bland, destitute of acrimony, and possessing an agreeable and balmy smell. This *vegetable milk* forms a principle part of food with the negroes and poor people, who work on the plantations. They take it along with their bread, made from the root of the Capova, (*Jamipha manchol*) or Indian Corn, (*Zoey Meyz*), and grow sensibly fatter during the season in which the milk is obtained in its greatest abundance.

To the east of Caraccus, in the valley of Concagua, it is known by the name of *Arbol d' Seche*, or the Milk Tree, and the inhabitants make cheese from it. In the Valley of Caucus the milk, by solar inspissation, is converted into a black gum, highly prized for its medicinal virtues, and sold at the high price of one dollar an ounce, or one doubloon per pound. Such is the accounts given by those celebrated travellers—Humboldt and Bonpland.

But what I would call the reader's attention to is, the article which was our first food; that which nature has so superabundantly provided for all young animals, and what has become, to us, one of the true luxuries of life—good milk.

From a table, by M. Pareira, we find that the milk of the ewe is richer than any other in the total of its contents. That woman's milk gives the greatest per cent. of butter, and the mare's milk contains the most sugar of milk; but slightly exceeding, however, woman's in this respect.

Nature, seeing the wants of the young animals, has placed within its reach, and by instinct has guided it to such food as is most congenial to their health, strength and rapid growth. And the first milk, or "beastings," are particularly adapted to their wants, as the young animal

will take only a very small quantity at first—it is of so strong a character that this little will effectuate the desired purpose. It is well known that this first milk or beastings contains a great quantity of casein. With most of our cows the beastings contain about 15 parts casein, while in ordinary state it gives only about 3 to 5 1-2. As the quantity diminishes in the farrow cow, the qualities improve within certain limits.

My attention was called, some time since, to an article in one of the leading agricultural journals, asserting that the beastings of the cow were, in a degree, poisonous, and that by feeding the breeding sow with them they would produce abortion. There can be no doubt that a moderate quantity of this milk would be beneficial to the sow, and even of material service to the whole stock—acting as a laxative to them. But the idea of one's giving the pregnant sow a full gorge of beastings is extremely ridiculous, and only an unskillful manager would do so. Experience teaches many a planter wise lessons, which could be found in the agricultural journals of the day at half the cost.

Being in conversation with a friend the other day, he gave me the following bit of experience that happened to him:—He had a valuable cow; gave her, after calving, all the beastings that he could get from her—this being the advice of some moon cow doctor. His cow soon after died; he opened and examined her, and found the milk had gone into the fourth stomach, and but little else in there; the folds of the stomach so closely stuck together that nothing could pass, and it was his opinion that the milk given and that only, caused the death of the cow. He was right in his opinion, and he paid dearly for it at that. In the first place, he had no right to give her the beastings, and the next, he ought not to have meddled with her unless she showed some signs of sickness.

There seems to be a prevailing opinion throughout a good portion of the Southern country that the milk of the cow, for the first three or four weeks following the dropping of the calf, is not fit for use, and that one using such will be liable to sickness. At the period of yearning the dam does not get sick—is not prostrated—unless by some mismanagement. Her udder does not get out of order unless the milk is suffered to remain too long. This milk has been a long time collecting and, of course is very rich—contains a large quantity of casein. But when this milk is once drawn out thoroughly and effectually, there is no cause of sickness, then the milk comes naturally and is as good as ever, which will be in two or three days—four at the utmost—if the cow is healthy.

The dairy farmer is well aware of this fact. The first is drawn out and disposed of among the hogs; the second milking is sent to market. The calf is either killed or sent off to be brought up by hand—never allowed to suck at all. We can find many instances that would go to verify this fact. There are many families who use the milk of the cow in the morning for breakfast, when she drops her calf before supper of the same day. Why is it that they are not sick? if the assertion is true that the milk is poisonous at this time. It is true that this treatment of cows does not increase the quantity of her milk from year to year, and is the only objection to the general adoption of this plan.

When we take the young cow with her first calf, and with some pains and feed if need be, keep up her supply of milk all the year round, until one or two weeks before the time for her to drop her next calf, we are more than repaid for this extra trouble, in the supply of milk the ensuing years, and the cow will not fail, unless by the grossest neglect on the part of the milker. As for the truth of this I will refer to any unprejudiced dairy farmer.

The question may be asked, Why is the milk of one cow richer than that of another? This much depends


upon the feed—I might say all. Suppose we take one of the native, scrub cows, that run in the woods and get nothing during the summer months but coarse, half dried grass, bitter twigs and leaves for food, we will find her milk little in quantity and very poor in quality, and by testing it in the cream guage it does not give more than one-thirty-second for cream, and that very lightly colored which makes very blue and unsavory butter.

Now, if we take this same cow and feed her green corn or millet, with an allowance of two quarts of meal daily, we will find the quantity of milk much increased, and upon testing this, the cream will rise from three to five-eighths by the guage and be of a deep yellow cast and very rich. Again, take this same cow and let her daily feed be four quarts of linseed meal, or oil cake, with as much hay or fodder as she wants, we will find the quantity of milk double, and often times four-fold that it was when the cow was fed on green corn and meal. While this milk is thin, blue and having a flat taste, by filling the cream guage do not give more than one-sixteenth for cream.

These observations have come under my own eye within the past year, and I have taken much pains to learn these facts.

It is well known that some cows give richer milk than others on nearly the same feed and under the same treatment. I can attribute it only to the superior breed of animals, or the preponderancy that such cows have towards their better ancestors. D—.

*Sumter, S C, July, 1857.*

 We commend this article to the especial perusal of all readers who take an interest in the subject. It is from the pen of one of the most profound Naturalists of our country:

#### A SUCCESSFUL METHOD OF RAISING DUCKS.

BY EXPERIMENTER.

BELIEVING it to be the duty of every individual to contribute for the benefit of society, any information he may possess, however small, and on subjects ever so humble; and having for several years past been in the habit of seeking recreation during those hours which were not devoted to severer studies and labors, in a variety of experiments on subjects of Natural History, I propose giving you the result of some experiments in raising Ducks, which were carried on during a number of years, and which finally eventuated in complete success. It is sometimes beneficial to examine the causes of our failures, and it affords me pleasure at this moment in retracing the steps by which, after many disappointments, I gradually accomplished the objects to which my inquiries and experiments were directed. As an account of the process by which I arrived at these successful results may not be uninteresting to those of your readers who devote themselves to rural pursuits, and who pride themselves on having a well stocked poultry-yard, I hope it may be no tax upon their time and patience, if I go somewhat into detail.

During many years I was struck with the general want of success, which attended the raising of this species of poultry. Not one-sixth of the young were ever raised; they appeared to be subject to innumerable diseases. Those that escaped were stunted in their growth and did not arrive at full size till they were many months old. The general complaint among farmers and planters was, that this, the most valuable of our poultry, was a puny bird hard to raise and subject to many diseases. They could raise geese and even turkeys, but there was no certainty with regard to the Duck. Desirous of investigating the causes of a failure in raising a bird which in its wild state is very hardy, which, although exposed to all the vic-

cissitudes of the weather, raises large broods of young, I procured several Ducks, determined to pursue my experiments in various ways till I should either be successful or be satisfied that in a state of domestication, there existed obstacles to their successful rearing which no foresight or care could prevent. At first I adopted the usual mode of giving them access to as great a body of water as I could provide for them in the yard. I, therefore, had an artificial pond made near their coops, to which they could resort as often as they choose: where they amused themselves at all hours of the day, in dabbling around the edges of the pool and in swimming and diving in the water; but they did not grow; they were subject to cramps and fits, and one after another died, until I began to think that water was not their proper element. I varied their food; gave them rice flour, corn, grist, boiled potatoes, hominy, bran, and many kinds of vegetable food, but with the same results; and of a hundred young that were hatched, I scarcely raised a dozen. I then began to mix with their food various medicinal herbs, believing that this might correct some deleterious properties of their food, but it was to no avail. I next procured the different varieties of ducks for breed, thinking that perhaps one kind might be better suited to the climate and to the confinement of the poultry-yard than another; but I was soon convinced that my want of success was not owing to my breed of ducks. Several years passed away and left me pretty much where I began, and I was almost ready to abandon any farther attempts at raising the duck.

Tho' thought at last occurred to me that in the food with which we usually fed this species of poultry, we departed widely from nature, and that although the old ducks in their wild state fed on rice and the seeds of various grasses that are found along the edges of the rivers, brooks and ponds, yet that at the spring of the year when the young wild ducks are hatched there are few seeds ripe, and it is questionable whether at that early age they feed at all upon grain or seeds. There appears in the digestive organs of these young birds something unsuited to this kind of food; it passes through them without affording much nourishment. I had ascertained by dissection that their gizzards were filled not with vegetable food, but with the fragments of small craw-fish, worms and various aquatic insects, as well as the spawn of fishes; and I determined in the following year to try the effects of animal food. In due time my young ducks were hatched, beef was given them at first, after having been chopped very fine; this they devoured greedily and eat it in preference to all kinds of vegetable food. The effect upon their health and growth was immediate and surprising. They appeared to grow faster than any other poultry: in a few weeks they were out of danger, and in a few months fit for the table. As beef was expensive, I tried cheaper kinds of foods, such as the haslets of animals, crabs, fishes, etc. The result was equally favorable. I was now satisfied that in the article of food the end is attained by simply following nature and giving the young ducks animal food. But although my experiment was thus far favorable, I found that many of my young ducks died after having been suffered to go in the dews and water; and that after many showers of rain they become thoroughly wet, and that when showers were succeeded by hot suns they were subject to a disease of some apoplectic character, or a *coup de soleil* which killed numbers. Here I was much puzzled. I had succeeded in one instance by following nature but I found that I could not carry my theory through, and that water affected the domesticated duck very differently from what it did the same bird in its wild state. The fact was not unknown to me that the down of young wild ducks is almost impervious to water; they are exposed to dews and rains, they dive to the bottom of pools and streams, and live in the water; yet they always

keep dry. An oleagenous substance is spread over their feathers, from which the water glides off instantaneously and leaves the birds dry during all weathers. Not so with the young of the domesticated duck. Owing either to the confinement of numbers in a small space, where their down becomes ruffled and displaced, or to their not being able to procure that kind of food which in the wild state is favorable to the secretion of that peculiar oil which is found contained in the glands of birds, and which serves to lubricate their feathers and protect them from the wet, the down of the young tame duck soon becomes thoroughly wet and when this is once the case it is subject to various diseases and is difficult to raise. To accommodate the young duck to that artificial state into which it has been thrown by domestication, I found it necessary to adopt some mode by which during the first few weeks of its life (the only time in which it requires much care) it might be preserved from the effects of that element, which in its native state is almost its only residence and furnishes its subsistence.

A little reflection enabled me to guard against the inconveniences and dangers which result from this state of domestication. I had my coops built pretty large and tightly shingled, so as to be impervious to water. The young ducks were not let out in the morning dews till the sun had dried the grass, and the vessels in which their water was placed were raised over so that they could drink by inserting their bills between those little railings, but were prevented from getting into the water. After following these simple directions with regard to their food and shelter, I found that, by a little attention of a servant, I could supply my table with ducks the whole year round—that I seldom lost one in twenty and that they were free from all diseases. I raised from 100 to 300 ducks per year, and now found that they were the easiest of all poultry to raise. I communicated the result of my experiments to my friends. Those of them who had the disposition, the patience and industry, followed my directions, and in every instance met with the same success; I have their assurance, that they can raise ducks in any numbers, and some of them have for the last two or three years supplied our markets with from three to five hundred ducks of the largest size and finest flavor.

After having carried my readers through this, perhaps to them, tedious detail of experiments which cost me much time and attention, but for which I was more than repaid by the successful result, I shall now proceed to give, under different heads, such simple directions as will enable our planters and farmers to supply their tables with this kind of poultry, which might be an object to those who are in the habit of supplying markets.

1st. *The Species and Varieties of Ducks best adapted to the purpose of Breeding.*—The only two species of ducks that are raised in this country are what are commonly called the English Duck and the Muscovy Duck. The English Duck is a descendant of the wild duck that visits us every winter in such numbers, called Mallard; (*Anas Boschas*), is found also in Europe, and breeds in England, although not the largest, it is certainly among the finest flavored ducks in the world. The flavor of the famous Canvass Back Duck (*Anas Vallisneria*) that is found so numerous in the Chesapeake, and more recently in the Santee and at the mouth of the Savannah River, is, no doubt, superior to it, but it is supposed that this is owing to the peculiar kind of root on which that bird feeds, believed to be the *Vallisneria Americana*, and that were it fed on common food its flavor would not be superior. The English Duck, which is so common in our yards, has from its long domestication, run into a number of varieties which differ so much from each other as to appear like different species; they are of different sizes, of a variety of colors and some are tufted. The variety to which I

have usually given the preference, goes by the common name of Madagascar Duck, is distinguished by its being of the largest size, having a pretty long neck and almost invariably a light streak above the eyes, and usually a small streak extending from the lower part of the upper mandible to below the eye. The Muscovy Duck (*Anas Moschata*) is another duck more recently introduced, but which is now very common and is well deserving a place in our poultry-yards. It was formerly, by most writers, considered as coming from the Eastern Continent, but is now well ascertained to be a native of South America. This duck, in our Southern climate, is, perhaps, more hardy than the other; sets more steady on its eggs, and lays in the spring and fall. A mongrel breed between this species and the English Duck is easily produced, and has become very common; but these, though they are good layers, are unable to propagate their species. There are other species of ducks which the curious in these matters have partially succeeded in domesticating. I once saw a fine flock of the Gadwall Duck (*Anas Strepera*) which an individual in the upper part of the State of New York had succeeded in raising from ducks which he had captured, and which bred freely in his yard, and made no attempts at flying away. Our beautiful Summer Duck (*Anas Sponsa*) breeds freely in some parts of France and in the Zoological Garden, in England. But it is very probable that the two species above mentioned are as well adapted to our purposes as any other, and that for many years they will be the only ones which will be generally kept in our poultry-yards. One drake will answer for five or six ducks; where mongrels are to be bred, place in separate yard one Muscovy Drake to four English Ducks.

2nd. *The best mode of procuring an abundance of Eggs.*—When ducks are raised in the country and have access to rice-fields, ditches, ponds and the borders of rivers, they find food best suited to them and generally lay early and freely; but where they are necessarily kept in yards and do not possess the above advantages, it will be necessary to adapt their food to their situation. A mixture of any kind of animal food with their rice-flour, corn meal, or grist, given them regularly and plentifully three times a day, will enable you to procure a great abundance of eggs; where this is neglected your English Ducks will lay but sparingly. I have observed that animal food is not so necessary to the Muscovy Duck, but that they generally lay freely on being fed on grain alone.

3rd. *Setting and Hatching the Eggs.*—The English Duck, although a good layer, is very careless about hatching its eggs until late in the season. I have invariably used the common hen for that purpose, and when the young ducks are removed as soon as they are dry, their foster parent will set again on other eggs, and I have thus known a single fowl to bring out three and even four broods of young ducks in succession. In that case she should be repaid for her faithfulness by being richly fed. The young ducklings in this climate leave the shell on the twenty-sixth day; the Muscovy sets a few days longer. A fowl of a tolerable size will cover from thirteen to fifteen eggs. After the eggs have been four or five days under the hen, you may in the evening examine the eggs by the light of a candle or lamp—place the eggs longitudinally between the fore finger and thumb—if the egg is likely to hatch it will be of a dark color, with streaks of red frequently perceptible and the cavity on the thick end will be somewhat enlarged and transparent. If it is a clear egg, it will be wholly transparent, and it ought to be removed at once, and if it has not been too long kept in the nest it is still fit for use.

In this way when several hens have been set nearly at the same time, it will frequently be practicable to remove a sufficient number of clear eggs, so as to place a fresh setting of eggs under one or more of them. The Muscovy



Duck sets faithfully and may as well be permitted to hatch her own young.

4th. *Method of Destroying Fowl Lice*.—The insects which infest the setting hens may be easily destroyed by thoroughly sprinkling the nest and wetting the fowl even to the skin with a strong decoction, made by pouring hot water on a good handful of common leaf tobacco, mixed when cold with a table spoonful of spirits of turpentine, and double the quantity of gunpowder. It will be well also occasionally to take away their old nest and make a new one of fresh hay or straw.

5th. *Duck Coops, Food and manner of Rearing the Young*.—Let your coop be made pretty large, say three or four feet in length and three in depth; let it be well shingled so as to exclude all water, and have a good pitch towards the front; let it be tight on three sides and barred in front with a slide below the lower bar, so as to retain the ducks in unfavorable weather. A space of 10 or 12 feet square, formed of common boards set up edgewise will, when you have not much room in your yard, suffice for fifty ducks. Keep making coops in proportion as your ducks increase in numbers, and endeavor to keep the different sizes separate. The first brood, early in the spring, requires for a few days the warmth of the hen's body and she should not be made to take care of more than twenty or thirty; a little later in the season the young that are then hatched do not require the services of their foster mother, and may, from the beginning, be placed in a coop by themselves to the number of fifty. Young Muscovy Ducks may be treated in the same way, and they and the mongrels and English Ducks may all be indiscriminately reared together. As soon as your young ducks are hatched, let them be placed together for a few hours in a basket containing some warm inside lining, and when they have sufficient strength, place them with the hen in the coops; feed them with meat or animal food of any kind chopped fine with a common chopping knife; for convenience I have usually had it boiled; a little rice-flour or corn meal may be mixed with it, and the latter may be increased if you have but little meat; let this be continued for three weeks, and they are out of danger and can be raised on any kind of food; still it is to be observed that ducks will, in all cases, thrive better on animal food, and where this can be conveniently obtained; it may as well be given them. Those planters who live near our seacoast, by running a tight board fence across any small branch of salt water, and placing in the centre a fish trap made of laths, can easily procure a sufficient quantity of fishes and crabs to feed all their young poultry. A man with a cast-net could in half an hour do the same. I have known persons in the interior of the country substitute squirrels, rabbits and even venison; and one gentleman fed his young ducks on the flesh of alligators, thus rendering that which was a nuisance subservient to his profit. When your young ducks begin to be tolerably feathered on the sides, which will be in five or six weeks, they may then be turned into the common poultry-yard, always bearing in mind that those which are best fed and obtain most animal food thrive the fastest.

I have not treated of diseases to which ducks are subject, since by the above treatment I have generally found them healthy. As this is a long essay and may be too great a tax on your readers to peruse, I would give in a single line the substance of my directions for the successful rearing of young ducks:—*Give them animal food, and keep them dry.*

CHARLESTON, July 29th, 1857.

EDITORS SOUTHERN CULTIVATOR—Gentlemen—In answer to your inquiries in respect to my mode of raising Ducks, I have had the above copied, and send it to you

with a few notes in reference to my views on the above, after the test of many years:

It is now about 30 years since my early experiments were made and 24 years since they were first published. I do not see anything of importance in the above article to correct. It has been frequently republished in our various agricultural journals, and I have not heard of any want of success among those who adopted this mode. It was translated into the French and German languages and circulated in tracts among the poulterers in France and Germany, and the markets of their cities are supplied with many ducks raised by this process. I have pursued this mode without the intermission of a single year with uniform success. The number of ducks to be raised annually for the use of my family I limited to 100. Some seasons when the poultry-yard was left altogether to servants, I fell a little short of that number, but generally went beyond it. The present season I gave half an hour of each day to the poultry-yard, which was to me an amusement and recreation. I commenced in January with 7 English Ducks and 2 Drakes. The cheapest food I could obtain in these dear times was rice-flour. Wheat bran or corn meal will do equally well. A small quantity of the lights of animals obtained from the butchers was mixed with their food. They began to lay early and some 50 eggs were lost by the frost. After having about eighty young English Ducks hatched, I concluded to encourage my old stock to present me with hybrids (mongrels as they are here called) I removed the English Drakes; divided the Ducks into 2 parcels and gave to each group a Muscovy Drake that had been reared the previous season in the yard without associating with any of his own species. From this connexion only about two thirds of the eggs are impregnated. But the birds are much larger and finer and very hardy. The Mallard, of which our English Duck is a descendant, breeds far to the north; the Muscovy, on the other hand, comes from the tropics. The descendants from these opposite constitutions would, as I supposed, be better adapted to our climate than either of the originals. This I have found by long experience to be the case. This season there were raised in my yard 150 ducks; a large majority are hybrids: I have not lost a single duck, except by an accidental injury. The early broods were full grown in the latter end of May, and we had the first pair on the 30th of that month, and have had them on the table every week since. An English Duck when well fed will lay about 50 eggs during the season. Mine exceeded that number this year. I gave away about 100 eggs and 50 young ducks, and my poultry-yard is still stocked with ducks from the large mongrel drakes nearly the size of a goose to those of three days old.

An important matter in raising ducks is to hatch the eggs. My hatching establishment is separated from the common poultry yard. The nests are in moveable boxes, which are taken out and scoured as each young brood is hatched. By this means I am exempted from troublesome insects. My out buildings are raised above the ground and with good cats I am not annoyed by either rats or mice.

I this year made an experiment in producing hybrids between the English Drake and Muscovy Duck. The eggs proved as prolific as those of the opposite cross, but the young, after two months old, are so small compared with the other, that I cannot advise this plan.

Yours truly,

B.

P.S.—The earliest hatchings should be kept for the next year's stock. They are always the largest. Ducks of a year old are the best layers.

All subscriptions to the *Southern Cultivator* begin with the January number.

# "FREE" SOCIETY---LIFE IN NEW YORK.

THAT immaculate Black Republican sheet, the New York *Tribune*, gives us the following graphic and attractive picture of the present condition of that city:

Sixteen murders have been perpetrated in this city since the 1st of April, about which time Mayor Wood began to develop his programme of violent resistance to the laws, and the whole army of grog-sellers bid defiance to any legal interference with their desolating traffic. There have been at least twice sixteen attempts to murder, besides violent assaults and rum-hole fights without precedent. Ten thousand hardened and hopeless female outcasts swarm the street at night, two thousand children under the guise of pedlars, from the age of ten to sixteen, penetrate every public building, store and office in the city to beg, steal, spy for burglars, and on their own account to practice those vices which cannot be named in respectable language; five thousand great and small gamblers prey upon the credulous and infatuated, standing all day at the doors of their dens in Broadway, as well known in person and profession as the Mayor himself; ten thousand lazy, drunken, thieving, short boys, swill boys, killers, roughs and rowdies of other names, lounge on the rum-cursed corners of the street, making day disgusting, night hideous, and travel dangerous to all who can be suspected of having respectability or money; thousands of emigrant swindlers, mock auctioneers, lottery dealers, policy backers, pick-pockets, hall thieves, burglars, wharf rats, area-sneaks, pimps and vampyres, practice their knaveries as openly and with as little fear of punishment as though they were engaged in the most virtuous and legitimate of human pursuits.

The swell-mob of London, flying from the argus-eyes of a real police, and the unendurable felons of San Francisco, expatriated by the bullets and the hemp of the Vigilance Committee, are received here with open arms, parade our streets under, not only the toleration, but the protection and personal friendship of the police, carry our primary elections, and fill high places on our nominating committees. On every hand we have vice and crime and splendor; crime, vice, ruin and beggary. Here, in the most fashionable faubourgh, is the Crockford's of New York; there, between the palatial residences of a millionaire and a divine, is the "maison de joie" of a woman whose dress is the most brilliant, whose equipage the most costly, whose appearance the most stunning, of any of the gay butterflies, virtuous or vicious, whose beauty and wealth add glitter to the opera or sunshine in the promenade. Within a bow-shot of these palaces is the other side of the world; for brocade, rags; for diamonds, dirt; for Johannisberger, whiskey; for millionaires, beggars; for divines, devils; for Aspasias, drabs; with here and there some poor, starving wretch, painfully enacting the "Song of the Shirt," her besieged virtue glimmering in the misery of this tangle hell, like the fabled jewel in a dung-hill. And, over all we have a set of men called rulers, wrangling like hungry dogs for the public purse: lying and cheating for advancement; plotting to overthrow all law, that they may rob the people; and, in their influence upon our vast criminal population, recklessly flaring their incendiary torches in our moral powder house.

**HOW TO KILL ANTS.**—For the benefit of those persons whose premises are infested with ants, we can inform them, on very good authority, that, by putting a piece of the Cyanuret of Potash, about the size of a hazle-nut, into the mouth of the hole, they will in a short time be rid of these troublesome pests, as it speedily kills them. This preparation can usually be obtained at the Druggists, and, as it is the base Prusic Acid, too much caution cannot be taken to guard against accidents.

# STANFORD'S WILD OAT GRASS---RESCUE, &c.

EDITORS SOUTHERN CULTIVATOR—The July number of the *Cultivator* lies before me to-night, open at page 222, on which John R. Stanford asks "to hear of the result" of trial from all who have sown that Wild Oat Grass. Being one of the favored who received a package "gratis," I cheerfully respond, which, by the way, I intended to do, but waited until our hot weather had "come and gone." Understand, I never saw the grass before this year, therefore, I only give you what I know.

On the 26th of November last I sowed the seed on land only prepared by the plow; it was rough covered with my foot, when some of the clods were broken. Land medium quality, upland, oak and hickory original growth, cleared in 1823 or 1829.

I have now gathered a few seed; seed stalks 2 to 3 feet high. The seed stalk dry for a few inches only, rich green foliage, blades of grass in many instances 6 inches long. It has withstood one of the coldest winters and springs I have ever known, with a luxuriance of growth more allied to oats, rye and barley, &c., than of the grasses generally. There is now as rich, green, luxuriant foliage as at any prior day. I have had too little to experiment with, other than to let it alone. No care or attention except to pull up weeds in and about it once, about 40 days ago. No fancy culture.

*The Rescue*, I allude to merely to show the difference. I bought a bushel of the seed. Land plowed and harrowed, seed sown and brushed in. I have gathered about half bushel of seed—to try again—and if there are any green blades I cannot see with the aid of the Brazilian pebble glasses. I mean the grass is as dead as my oats, rye or barley that is cut.

*Phinn Grass*, sent me from New Hampshire, is now as green as it was two months ago, pretty tufts rather longer than the Wild Oats, and close to the earth; only fit thus far as a grazing grass. Not a seed stalk yet.

These two grasses—Wild Oats and Phinn—with my success this year with Clover, Blue, Timothy, Red Top Alfalfa (Lucerne or Chilian Clover, identically the same), have given me so much satisfaction that I have determined to appropriate 6 acres of land to a trial of as many grasses as I can procure. By staking off, or laying off into beds  $\frac{1}{4}$  of an acre each I can try 48 varieties. I will prepare it handsomely and only ask for seed enough for  $\frac{1}{4}$  of an acre of all varieties known. Thorburn, of New York, writes me and sends a catalogue describing 22 varieties, besides the clovers. My object is to test the varieties that will endure winter and summer, for a year or years.

I have received from Mr. K. Park, of Oakland, Texas, two varieties of the Musquit—Aromatic and Millet, or Wheat Musquit.

Preparing land, labelling each parcel of land shall be done with all the care I am capable of, and I only ask to be put in possession of the seed. I am, at the same time, willing, and really prefer it, to contribute all my seed and \$5, if any one will undertake the experiment who is more able and competent.

Hoping that this may stimulate our folks to an exertion, I am, as heretofore,

Yours truly, M. W. PHILIPS.

Edwards Depot, Miss., July, 1857.

**HOW TO GET A HOUSE OUT OF A WHISKEY BARREL.**—Put the barrel in a secure place, near a spring of good water, on the road to a grog-shop. When you want a dram, take the prize of it in your hand and start to the grog-shop; go as far as the spring, drop the money through the bung-hole, take a good drink of water and return home. Repeat this operation till the barrel is full, knock out the head, and you have the price of a splendid brick building.

## INQUIRIES.

1st. WINE FROM BERRIES.—*Editors Southern Cultivator*—When we cork up, air tight, immediately after straining, it bursts the bottles.

When we let it stand till done fermenting it turns to vinegar. What is the matter? We have in both cases followed the recipe books.

2nd. WILD POTATOES are abundant here and perfectly hardy, very prolific and very large; old roots are bitter and stringy. Some young roots taste finely. There are worse esculents. Better than artichokes for hogs. Who will try to improve them by cultivation? I will furnish seed to any careful cultivator who will undertake the work.

We, in Tennessee, fail almost entirely to keep seed Sweet Potatoes through the winter. We gave five dollars a bushel last spring for seed brought from the South. It is time to get a hardy substitute.

3rd. CATALOGUES.—Will all the Tennessee and Georgia Nurserymen and Seedsmen who read this send me their Catalogues? E. W. McDONALD.

McLemoreville, Tenn., 1857.

### THE ORIGIN OF THE "BILL BUG," OR CORN BORER, and mode of Destroying the same.

EDITORS SOUTHERN CULTIVATOR—I wish to give to your many interested readers my present and past experience upon the above very destructive bug to the young corn. Your very many respected readers, as well as myself and many others, have experienced the great inconvenience of securing a stand of corn in the spring of the year, from what is generally called the (but very erroneous) Bud Worm, for instead of it being a bud worm, it is a "Bug." For a better description of the insect Bill Bug, or Corn Borer, I cannot give than to refer your many readers to the description given by Senator Evans, of South Carolina, in the Patent Office Report for 1854, plate 4, page 67, where he says: "The insect, Bill Bug, or Corn Borer (*Sphenophorus*) is from four to six tenths of an inch in length, and of a redish brown or redish black color. The head is furnished with a long trunk or bill, hence its common name." It is very destructive to corn in many parts of the South and Southwest, and was brought for examination by Senator Evans, where he states it is very injurious to the crops on the Peedee River. He says: "The perfect insect cuts into the stalk of the corn either below or just at the surface of the ground where it deposits its egg. After changing into a grub the insect remains in the stalk, devouring the substance until transformed into the pupa state, which occurs in the same cavity in the stalk occupied by the grub. It makes its appearance the following spring in the perfect state, again to deposit its eggs at the foot of the young corn plants. These insects destroy the main stem or shoot, causing suckers to spring up which usually produce no grain, or if any, of very inferior quality to that of the general yield. Swamp lands or low grounds are the places most generally attacked."

I have given your readers a very correct description by Senator Evans, of South Carolina, of the Bill Bug, but I entirely differ with our worthy Senator as to the generation of the Bill Bug, or when the egg is deposited, for the Senator says, in the latter clause of the same report, "At the same time the wild plants they infest should be discovered and also be destroyed." Then it seems he had some notion that he was not entirely correct concerning germinating state. My experience is, that they do infest a wild plant, and that plant is the common Carrot or Rag Weed that is so common to our Southern plantations and which wholly destroys our grass pastures after the small grain is gathered off.

These bugs destroy the young corn by boring their long bill into it, just below the surface, for the purpose of sustaining life, as the young corn is at that time about the first vegetation up and being very full of juice, it affords them fine succor. They continue to sap it until its life is exhausted. They continue to destroy it in this way until about the first of June, when they leave corn and commence depositing their eggs in the very tender stems of the Rag Weeds which have grown up at this time from six to ten inches high. They bore into the tender stem of the Rag Weed with their long bill and there deposit a small yellow egg about the size of a small mustard seed and in the course of some two weeks or less time it is hatched into a small grub. It then lives on juicy portions of the weed and continues to grow and finally passes into three different formations before it becomes the perfect bug. But I will not go into the minutiae of the thing at this time.

During the time they are depositing their eggs in the stem of the Rag Weeds near the top they can be seen at all times of the day from the time they commence until past; and whilst depositing the eggs they feed on the young tender leaves of the Rag Weeds; and the very moment they are interrupted they tumble off on the ground as sullen as an opossum.

My mode of destroying the bug is to destroy first the Rag Weed; and as the time of year is near at hand to commence operations I send you this communication, for I regard it one of vital interest to the planting community in the Southern States, and I hope this communication will enlist many friends in behalf of destroying this great enemy, not only by saving themselves the trouble and vexation of replanting the corn crop so often, but of having our stubble fields covered over with with fine luxuriant Crab Grass, which is generally covered with this obnoxious weed. I commence about the middle of August to turn these weeds under with a very large two or three horse plow, which very effectually destroys them before seeding time; and in my cultivated lands I suffer no Rag Weeds to go to seed; and in this way I can effectually destroy them. A very good way is to cut them down on your stubble lands with grass blades—I tried both last summer and did well. But I prefer turning the weeds under with a large plow, say Prouty & Means' No. 22. But on a large plantation where there is a great many hands plowing and cutting, both would prove advantageous.

I very much hope that this imperfect communication will enlist a goodly number of your intelligent readers in this great work, for I regard it a matter of more vital interest to the planter than anything that now could be set on foot.

SALUDA PLANTER.

### GOOD PLOWS.—Why should you have a good Plow?—

1. Because you will do your work so much easier. You may save 25 per cent. in the strength of your team by using the best plow.

2. Your work will be done so much better. The same per centage may be saved in the doing of the work, and in the crop succeeding. How much better, then, to get the best.

What are the qualities of a good Plow?—1. Easy draft.

2. Easy management with the hand.

3. Even depth of furrow.

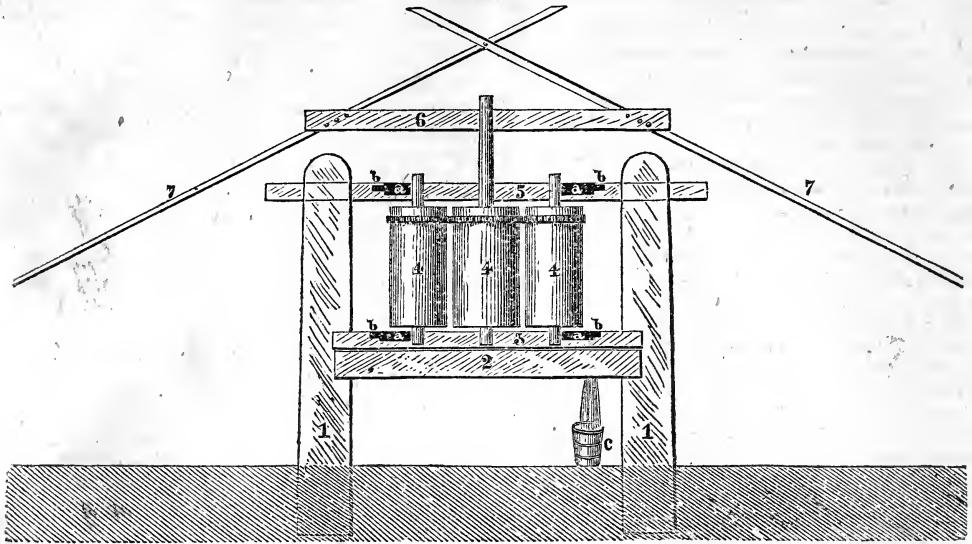
4. Facility of gauge to plow deep or shallow.

5. Sharp coulter and point, to cleave the turf and soil.

6. Freedom from liability to be clogged.

7. Turning the turf completely over, and hiding all the grass.

The way to learn these qualities, is practice and observation, aided by the opinions of good judges.—Ohio Farmer.



### A GOOD AND CHEAP SUGAR MILL.

EDITORS SOUTHERN CULTIVATOR—By the request of one of your subscribers, I send you a draught of a Cane Mill, accompanied by a plan to build. It is the simplest, easiest to make, and the steadiest of any mill in use in this country. I have one put up on the same plan, of my own make, (except the rollers, which are cast.) It is decidedly an improvement on the old way of putting them on a platform. Put the posts in the earth deep, and they are as immovable as the mud-sills of a mill-house. After they are once framed, two good hands can put them up or take them down in ten minutes.

#### DESCRIPTION OF DRAUGHT.

1. 1. are posts, five feet two inches above the ground, 10 by 14 inches, let in the ground 3 or 4 feet. Two feet above the ground, make a mortice four inches deep and ten inches wide, running up the post fourteen inches, then cut out to one side five inches wide, so that the bed piece and lower-collar beam may be adjusted without disturbing the posts after they are once set in the ground. 13 1-2 inches above the 14 inch mortice, cut a tenon on the end of post 10 by 4 inches; bore a 1 1-4 inch auger hole 43-4 inches from shoulder in the middle of the tenon and your posts are finished.

2. is bed piece, 4 by 20 inches, 6 feet eight inches long, tenon cut to fit mortice in the posts; cut a wide trench on each edge of the top side of the bed piece, a little longer than the width of the rollers, deeper at one end than the other, so as to collect and convey off the juice as it falls from the mill, connect them by a trench at the lower end, then cut a lip to empty juice in tub c.

3 is the lower collar beam, 6 feet 8 inches long, 5 by 10 inch., tenon cut to fit mortice in post, three round mortices cut 14 inches from centre to centre, somewhat oblong, for the reception of the necks of the rollers, trim off the top side rounding to prevent the juice from running down the neck of the rollers. It is necessary to keep them dry.

a, a, are mortices cut on the top side for the keys that work against the neck of the rollers; they are 4 by 4 inches, 10 inches long, cut hollowing at one end to fit the neck more closely. b, b, are tightening keys, 3 by 2 inches, tapered to one end, 2 by 1 inch, 12 inches long; before you begin to grind, tack a piece of tin over the bottom keys to keep them dry.

4, 4, 4. The rollers turned round, a little full in the middle. They are 18 inches long and 14 inches in diameter,

with necks 5 inches long and 5 inches in diameter, except the upper neck of the middle roller, which is 22 inches long, and 6 inches diameter. Cut a groove near the edge of the lower end of the rollers to prevent the juice from running down the necks. Cut a groove 4 inches from top edge of the rollers  $\frac{3}{4}$  of an inch deep and 2 inches wide to receive cogs, which are  $1\frac{1}{2}$  by 2 inches and 4 inches long; give them equal space on the outer surface; let them into the rollers 3 inches make them out seasoned hickory; of drive them in tight, then saw them off  $1\frac{1}{2}$  inches from the bottom of the groove; trim the ends rounding.

5. Is top collar beam, 5 by 10 inches and 9  $\frac{1}{2}$  feet long; cut mortices to receive tenons on the end of the post, oblong mortices to correspond with those in the lower collar beam for the necks of the rollers; also keys for the same.

6. Is gimlet handle, 5 by 8 inches, 9 feet long, mortice cut in the middle 6 by 4 inches, to receive tenon, on the neck of the middle roller. Cut open, sloping mortices at each end to receive the levers.

7, 7, Levers 4 by 4 inches, tapered to 4 by 3 inches and 16 feet long; put them together with  $\frac{3}{4}$  inch iron bolts, with good taps.

b, b, are mortices for the tightening keys to work in, against the ends of the others.

Having all timber ready, begin to put them together. First set the posts firmly in the ground, 6 feet apart, perpendicular; see that one is not lower than the other; ram them well, then put in the bed piece; next the lower collar beam; now set up the rollers; next the top collar beam; pin it down well next the gimlet handle; wedge it well about the neck of the roller; and lastly put up the levers; put in the iron bolts and screw them tight; wedge down both ends of the lower collar beam. Now if your mill is plumb and true, you are ready to begin to grind. Tighten the keys a little at a time, until it is tight enough, and then keep it so. Grind out a boiling as soon as possible; put it in the boilers; start it off with a moderate fire; skim off what rises to the top; continue to boil it until it flakes off the cooler pretty largely; then it is syrup. If you want to make sugar, boil it until the foam looks like it rises from the sides of the boiler and makes to the middle, and you are sure to have some sugar. Black gum makes an excellent roller. The timbers for the frame should be sawed. With all the timbers at the place, such a mill can be put up for 6 or 8 dollars.

SIDNEY BURTON.

Glasgow, Ga., 1857.

## HILL SIDE DITCHING---LEVEL ROWS.

EDITORS SOUTHERN CULTIVATOR—*Dear Sirs*—I have just been re-reading in your January number, Col. Cannon's letter on the subject of Level Rows, &c., which has suggested an inquiry, inasmuch as I feel somewhat interested in the subject, living as I do in a country which is equally susceptible, with any I have ever known, of washing away. If he runs his rows on a dead level what becomes of the water? Now, in this country, our subsoil is altogether impervious to water, and it is certain that water will go somewhere, and if we do not provide the means of its escape it generally takes care of itself and makes a break across rows; while by running hill side ditches with slight falls and each row below on a parallel so as to carry off its own water, only allowing the short rows to empty into the next lower hill side ditch, we have had better success than in any other way in filling up old gullies and preventing new ones being formed. He also compares the fall of hill side ditches with that of the various rivers. He has certainly never thought that the volume of water in a given channel has as much influence on its velocity as the nature of the channel itself. And in this connexion I will add that we only want in our hill side ditches enough fall to carry off the water which usually falls without taking away of the soil, and this can only be determined by the nature of the soil and the inclination of the hill.

W. H. R.

Madison Co., Miss., July, 1857.

## CHINESE SUGAR CANE IN TEXAS.

EDITORS SOUTHERN CULTIVATOR—My brother gave me a few seed of the Sorgho Sucre, which were planted on the 20th of February last; they came up only tolerable well; part of it, when about 6 inches high, was cut down on the 12th of March by frost. On the 5th of April another planting was made of Sorgho from New York, which came up sparingly and overtook the first planting, or that which was spared by the frosts of the 12th, 13th and 14th of March; and when I received the bag of Sorgho from you the 8th of June a portion of the seed were sufficiently ripe to plant another crop, but I was deterred owing to the drouth. Up to that time there had been but two or three tolerably good rains from the time it was planted, and a slight rain since—no really soaking rains. It has grown 8 or 9 feet high and the blades are but just now showing the effects of the extended drouth. Judging from the stalks I have, the yield would be 30 or 40 bushels an acre, while Corn along side of it is entirely burnt up, not yielding 5 bushels to the acre. Before planting the seed, the ground being so thoroughly dry on the surface and near it had to be well soaked with water to induce the seed to vegetate.

A gentleman having a farm twenty miles from this says he has about an acre of ground planted with the Sorgho Sucre; he thinks the produce will be 50 bushels to the acre. About three weeks since, there was a good rain on it (the first since it was planted), but not until after it was well seeded. This, I think, would be a good yield in a more favorable season; but, considering the great drouth, is an astonishing yield. I do not hear of any person making sugar from the Chinese Cane about here.

Very respectfully,

F. B.

Lavaca, Texas, July, 1857.

TO BE THOUGHT ABOUT.—Can a farmer find any better investment for his money, above what is required for the support and education of his family, than to *expend it upon his farm*, in the improvement of his stock, in planting trees, in draining, enriching, improving and ornamenting the place he has chosen as the scene of his labors, and the center of his comforts?—*Rural New Yorker*.

## WINE PROSPECTS IN SOUTH CAROLINA.

A gentlemen of our neighboring State, who is deeply interested in the culture of the Grape, writes us as follows, under date of August 3d:

*Gentlemen*—I have but a very sad account to give you of my grape crop; we are told that summer rains are a "blessing from Heaven;" if so, I am particularly favored, for we have had innumerable "blessings" showered upon our valley. In May we had 15 days of rain; in June we had 18, and in July 21, and in August, so far, every day and all day. We have not had one day of warm weather, the thermometer never having risen to 90, and seldom to 86 degrees; and, strange to say, some of my neighbors, 4 or 5 miles off, were, last week, suffering for want of rain; and a grist mill not more than a mile and a half off could not grind for want of water, while everything here is mud and fungus. The consequence is, I am overrun with grass and my grapes have rotted four times as much as they ever have done; that is to say, all the oldest vines. My Catawbas, which are young, are *perfectly sound*, and so are young Isabellas. It is very fortunate the frost destroyed our other fruit, else they might have rotted also! My vintage this season will be very trifling, and with so much water I fear the quality cannot be of the best.

[Since the foregoing was written, the weather has been more favorable, and prospects are better.]

## CRYSTALIZATION OF THE CHINESE CANE.

The following letters were recently transmitted from the Hon. JOHN Y. MASON, U. S. Minister at the Court of France:

LEGATION OF THE UNITED STATES, }  
Paris, 13th May, 1857. }

*Gentlemen*:—In answer to your esteemed favor of the 28th of March last was received, and submitted to M. Alexandre Vattmare, the indefatigable friend of international exchanges, especially with our country.

He has addressed to me a letter, and placed in my hands eight pamphlets, which I send to you. I hope that you will find that they contain all the information which you desire. I cannot add to it. With best wishes for your complete success in your laudable efforts to introduce into the United States a plant which will add to the valuable products of the country,

I am, very respectfully,

Your obedient servant,

J. Y. MASON,

Messrs. Hodges, Mockroe &amp; Co., Philadelphia.

PARIS, April 20th, 1857.

*H's Excellency, John Y. Mason, U. S. Minister—*

Dear Sir:—Immediately on the receipt of your favor containing inquiries relative to the Sorgho Sugar plant and the possibility of crystalizing its sugar, I called on the gentleman here who could give me the best information upon this subject. I enclose a copy of a letter I received last night from M. Louis Vilmorin, one of the most learned (theoretically and practically) agriculturists of Europe, who has made a particular study of the Sorgho plant, and is the best authority, I think, upon which we may rely. To his letter M. Vilmorin has added the accompanying eight pamphlets relative to the cultivation and extraction of alcohol, sugar, &c., which were published at Paris, Marseilles, Toulon, and also at Constantine in Algiers, in 1855, 1856 and 1857. I trust that these will answer your purpose. Should you want further explanations I will be most happy to procure them for you. Yet I think that these will be sufficient to prove that Sorgho Sugar Cane can be crystalized, and that the Sorgho in its



other products also is destined to render immense services to mankind.

Placing myself at your disposal for any information tending to the spread of useful knowledge and international courtesy, I have the honor to be your Excellency's

Very humble and obedient servant,

ALEXANDRE VATTEMARE.

[Translation.]

PARIS, 20th April, 1857.

To Mr. Alexandre Vattémare—

Sir:—The crystallization of the sugar of the Sorgho, it seems, should be easily obtained in all cases where the cane can be sufficiently ripened; and, as the proportion of the sugar is an unfailing index of ripeness, it follows that we could always be sure of obtaining a good crystallization of juices whose density exceed 1.075, whilst weaker ones could not yield satisfactory results after concentration. I attribute this peculiarity to the fact that the sugar is preceded in the juice by a gummy principle, which seems to be transformed at a later date, for its proportion diminishes in exact correspondence with the increase of the sugar.

The uncrystallizable sugar, or *glucose*, undergoes the same changes; that is to say, it is more abundant before than after the complete maturity; but its action seems less unfavorable to the progress of crystallization. The gummy principle obstructs in two ways; for, besides being a serious obstacle to the commencement of crystallization, it afterwards renders it almost a matter of impossibility to purge the crystals if obtained. However, as I observed, this difficulty only presents itself in the employ of unripe canes; for, as soon as the juices obtain a density of 1.080 and more, they contain little else than crystallizable sugar and their treatment presents no difficulty. The lime employed, even to a slight excess, is not as detrimental, it seems to me in practice, as theory would perhaps indicate. Perhaps a slight fermentation, which is inevitable, may disengage enough carbonic acid to destroy the uncrystallizable compound formed by its union with the sugar. The fact is that the best crystallizations obtained have been had in these experiments in which I feared to have used too much lime. I should remark that heretofore my operations have been but on a small scale, and it is necessary to be very prudent before applying the experiments of the laboratory to practical operations; but at all events it seems to me, after all these trials, that the crystallization will not meet with serious obstacles wherever the plant attains a complete maturity.

VILMORIN.

#### EXHAUSTION OF LAND.

EDITORS SOUTHERN CULTIVATOR—The following ideas are from my agricultural diary; and if they contain any errors I should take it very kindly to have them pointed out; it being my great desire to induce an article from the pen of the Senior Editor on the same subject:

All soils are formed from the decomposition of rocks either *primary* or *secondary*. Vegetation derives two classes of elements from all the productive soils, distinguished by chemists by the terms of *organic* and *inorganic*; the former of which are derived from the atmosphere, and such decomposing animal and vegetable substances as may be present, the latter are formed in the primary rocks, being the mineral substances of which they are composed.

By the decomposition and disintegration of the primary rocks, *soils* are formed; or, more properly speaking, by the transformation of such rocks the materials are supplied for the formation of the secondary rocks; which, in their turn are decomposed, the elements of which form the basis of most of our soils.

These *inorganic* elements consist of potash, soda, lime,

magnesia, manganese, iron, silica, and alumina. Now these elements are distributed with great regularity in the primary rocks; as for instance, in analyzing the *felspars*, the micas, &c., we find the alkalies, iron and alumina, always present. So that soils derived from this class of rocks are capable of supplying plants with a requisite amount of either.

Not so with the soils derived from the *secondary* rocks. For here we find some of those elements predominating to such an extent as almost to exclude the others; for example, in soils derived from sandstones there is too great an excess of silica for them to be productive. In clay soils we find an excess of alumina, and even lime, that great ingredient of our prairie soils, can be in excess.—The *organic* elements are only four, viz: oxygen, hydrogen, nitrogen and carbon, all of which are formed in the atmosphere. Sulphur and phosphorus are also essential to the growth of plants, and are generally distributed in soils; the former in great abundance, the latter more sparingly.

The failing of our lands may be owing to one of three causes or to all combined. First, the inorganic elements being sparingly present in soils may become exhausted by cultivation. Secondly, there may be a deficiency of the *organic* elements to produce the necessary change in the inorganic elements so as to adapt them to the wants of plants; and, lastly, there may be a requisite amount of both the above-mentioned elements, but the sulphur and phosphorus wanting, which case would be equally fatal to the yield of abundant and heavy crops.

Now, the absence or exhaustion of any of these elements may be supplied by a judicious system of manuring, hitherto little practiced in this country.

A description of the best mode of making and applying manures on a farm, by an experienced farmer, through the medium of your journal, would certainly be appreciated by the most of your numerous readers.

Respectfully,

J. C. R.

Cub Castle, Okolona, Miss., 1857.

REMARKS.—The views expressed by "J. C. R." are sound so far as they go; he fails, however, to notice *Chlorine* as an element of plants, and overlooks all *Tertiary* and recent strata of rocks as supplying the earthy constituents of soils. Primary and Secondary rocks are covered in a large part of Asia, Europe and America with more recent deposits. In the British Provinces, north of the United States, and in the Northern and middle States, the so-called *Drift* formation covers much of the earth, and of course, soils are derived in a large degree from this extensive deposition. In many districts, however, as in Western New York, Pennsylvania, Ohio and Michigan, the *debris* of rocks older, and more or less underlying the *Drift* (or *Diluvion*, of old authors,) is mingled with the latter in the loose earth at the surface of the ground. In the Southern Atlantic and Gulf States, where the *Drift* is wanting, Tertiary rocks, which, according to HITCHCOCK, are some 2,000 feet in thickness are pretty extensively developed from Georgia to Texas. They abound in fossils, and are well adapted, as a general rule, to the production of rich soils. LYELL gives an interesting description of this system, which he divides into the *Eocene*, *Miocene*, Upper and Lower *Pliocene*.

In that part of Georgia where the writer resides, there is neither *Drift* nor any Tertiary deposit; the soil is formed of rocks *in situ*, which are partly granite, and partly of the early debris of granite. As a common feature, such soils

are thin, hungry, and poor—more so than the Drift soils that cover the granites of New England and northern New York. Having studied both rocks and soils in the Northern and Southern States, and in the vicinity of Washington, where the writer spent four years, remarks on agricultural geology might be extended to any length; but to many readers, the theme may not be interesting, and we should approach it in its relations to cotton, corn, or wheat-culture before unscientific readers will see the point of the discussion. If one of these were to ask the reason why Alabama has drawn labor and capital enough to make it the banner State in the production of our great staple, although much younger than Georgia and the Carolinas, the true answer would be that the great attraction was in the strata from which her soils are mainly formed. The rocks and alluvial deposits of Alabama share largely in the remains of animals, and in all the earthy elements that support life; and, therefore, it is but natural that the State should early become the greatest producer of cotton in the sunny South. Some districts may lack water, and suffer from periodical drouths; but these facts do not show any defects in the other constituents of fertility. Indeed, with a fair supply of water, there is not a little land in the planting States whose crops would be doubled.

Artesian wells, reservoirs, canals, dams, ditches, and other appliances for irrigation may soon be as common here as in Southern Europe. The reasons why some soils are nominally exhausted sooner than others are various. The physical condition of the land, and the amount of rain water that passes through it have as much to do with the removal of all soluble fertilizing atoms, whether organic or inorganic, as the removal of annual crops. Too little attention is paid to getting tilled earth in the best attainable state to hold the food of plants about their roots. If full of hard lumps, or over-charged with coarse sand, an excess of dry air in summer below the surface, operates most injuriously at one time, while at another, a flood of water literally washes off the available food of growing crops. Much of the time we have too little rain; but when it does come two or three inches fall in one or two hours, serious damage is done by the suddenness of the shower, rather than by the quantity of water that falls in the aggregate. L.

#### RAISING WATER FOR IRRIGATION.

DR. DANIEL LEE—*Dear Sir*—Please allow me to seek from you information upon the subject of irrigation, by elevating water by machinery, which is of great importance to me and to this entire section of country. Our fields are now entirely bare of any kind of vegetation, and a good crop has not been made here for three years, entirely for want of rain. The Spanish Jesuits who erected the Indian missions here and over Mexico, constructed irrigating dams and ditches upon this stream, the San Antonio River, and these irrigable lands are now producing the only corn in the country. The question, then, has become quite common among those in the vicinity of a permanent stream: How can I irrigate my land? Knowing you to possess the information, and believing you willing to communicate to those for whose benefit and improvement you have so nobly spent your life, I venture to inquire, What is the cheapest and most efficient wheel, pump or other machine for elevating water from 20 to 35 feet, when propelled by a water power of 6 feet fall, and an unlimited supply of water? Can a machine capable of elevating one ton or more per minute be driven by a band from the power wheel?

I am anxious to know your opinion of the pumps described by B. P. Johnson, Secretary New York Agricultural Society, in Transactions for 1851, appendix pp. 66 and 67, and particularly the one called Appold's Centrifugal Pump. Can either of them be obtained? What is the

probable price for one of the capacity I have mentioned? and what kind of wheel and gearing would be best for the locality described? What average amount of water may be elevated one foot per hour by a moderately sized Wind Mill in a prairie country where there is almost constantly a considerable breeze? Can you refer me to a machinist who can furnish me with accurate specifications and estimates of this class of machinery? Such as is not bulky we can best purchase North, as lumber is here worth \$60 per thousand and labor correspondingly dear.

Your attention to the above queries, so far as may be convenient, will confer a very great benefit upon us. Please mention what kind of machine the Cornish Engine is, referred to by you in July number, 1855, of the *Southern Cultivator*. Very respectfully,

A. E. EDGEWORTH.

San Antonio, Texas, July, 1857.

P. S.—In the same article you say that "no pains will be spared to illustrate all the principles of this new science (Ag'l. Engineering) in your next course of lectures. From whom can they be obtained?"

ALTHOUGH the above letter was written with no apparent expectation that it would be published, yet the subject matter is of so much interest to our readers, and to call out all possible information for the benefit of our correspondent, it is inserted in the *Cultivator*. If Mr. EDGEWORTH has at his command a water-power of six feet fall, permanent throughout the year, with an abundance of water, he may do almost what he pleases in the way of irrigating the land in the vicinity. He asks if a ton of water per minute can be elevated from 20 to 35 feet? Let us see:—Six tons falling six feet in ten seconds or one-sixth of a minute, would exactly balance, or equal one ton falling 36 feet in 60 seconds. In mechanics, however, about one-third loss by friction of machinery should be allowed; therefore, as two is the third of six, and added thereto make eight, eight tons of water falling 6 feet, as indicated, should elevate one ton 36 feet. Something like this result is attainable in practice. A broad pitch-back wheel some ten feet in diameter, having buckets of large capacity for holding water let into them a little above the centre of the wheel, would drive an endless chain armed with buckets, and working on two pulleys, one in the water below to be raised, and the other at the height it has to be elevated. All chain pumps are made on this principle, in which flat pieces of metal rising in a tube, lift the water in place of proper buckets. This tube might be made one or two feet square, and fitted on the inside with well ironed plank, whose four corners should be supported by four chains descending from the central ones, to lift the column of water as the chains passed up and over a broad pulley. Two central chains would probably be sufficient. In common chain pumps, only one is used; and we may add, that all the water elevated from wells at the water stations on the Georgia Railroad, to fill locomotive tenders, is raised by chain pumps worked by horse power. Of course your water-power will work force-pumps, if you prefer them to buckets of any kind.

We have not at hand a copy of the Transactions of the New York State Society for 1851, and cannot, therefore, give any information in reference to the pump named.

Wind mills having generally given place to steam power where they were formerly in use, we have paid little attention to their recent improvements. Messrs. FOWLER & WELLS, of the city of New York have had, and probably

still have, the selling of a mill called the "Vermont Wind Mill," which is so geared that when the wind blows too hard, and gives more motion than is desired, the sails are taken in, till at a high speed, nothing but the bare frame is exposed to the motive power. We never saw this mill, but all who have speak in its favor. One that will perform the work of two horses is sold at \$150. Write to FOWLER & WELLS on the subject. We have not yet seen the "Cornish Engine" for raising water by steam; nor have we published any course of lectures delivered in the University or elsewhere. Lectures that have to be annually repeated at one institution would lose in interest, locally, if in print. L.

#### THE RAISING OF CLOVER.

EDITORS SOUTHERN CULTIVATOR—I wish to commence raising Clover, and as I am entirely ignorant of the mode of so doing, I will thank some of your correspondents to answer the following questions:

How and when to prepare the ground? How and when to sow the seed? What quantity of seed per acre? At what age to commence grazing it? and at what time of the year? How often to plow up and re-seed? with any other information necessary for one ignorant on the subject to know. My soil is rich black prairie.

I shall feel under great obligations for the information desired. Your obedient servant,

WILLIAM H. SMITH.

Woodlawn, Nacoochee Co., Miss., 1857.

ALTHOUGH the above is addressed to our "correspondents," yet, lest no one should give the desired information, we venture a few suggestions on the culture of Clover.

If your soil is not deficient in lime salts, you are not likely to meet any serious difficulty except hot, dry weather. To provide as well as you may against this disadvantage, plow your land deep in September, or early in October, with a view to seed early in November, if not before, with winter wheat. Let the tillage be thorough as well as deep, to secure a premium crop of this cereal; and sow five or six quarts of clean clover seed per acre after a season in the last of January or the first of February, broadcast on the wheat, and roll the land sown lightly to compress the earth about the seed. At the North, clover seed is generally sown in March on wheat and snow—an element not likely to lie long on the ground in the State of Mississippi. No rolling or harrowing of the seed is there often required, or practiced. Clover being a biennial plant, it will stand where it suits at least two years; and if seed ripens and shatters, it will flourish much longer.

Be governed by its *growth*, or abundance, in feeding; when small and feeble, keep all stock from it. It will yield two crops of excellent hay in a year. For breeding sows, working cattle of whatever kind, and cows giving milk, we know nothing that equals it, South. For some weeks after clover seed germinates, the young plants need protection from the sun even in the Northern States, and still more at the South; and for this purpose, on good land adapted to wheat, it is the favorite plant to act as shade and a nurse to young clover. After the wheat is harvested, the clover will take care of itself except in severe drouths, which are apt to kill it and some other valuable crops. After clover covers the ground well, and has

sent its long tap-roots a foot or two into it, few plants stand dry weather better than this. According to BOUSINGAULT, the roots of clover equal one-third of the whole in weight and substance of the plant; and this is one reason why it so enriches land. Save your own seed, and be careful to have it *clean*, and re-seed once in three or four years, with wheat, rye, barley or oats.

Agricultural authors describe nearly twenty varieties of the *trifolium*, and botanists 150 species. It belongs to the Lotus division of the *papilionaceous* legumes. L.

#### THE CROPS, WEATHER, &c.

TEXAS ITEMS.—The *Marshall Republican* says there was never a better prospect for an abundant yield of wheat, corn and cotton in that section.

The *Richmond Reporter* gives a glowing description of a cotton field of thirty acres in full bloom.

The Neuces Valley farmers complain of the drouth, but crops are in a forward and promising state.

The *Columbia Democrat* says the great staple is rapidly developing in that section. The bolls are large, healthy, and full of promise.

The *Victoria Advocate* is jubilant over the prospects of a rich crop of apples and pears in that section. The fruit is nearly grown. The *Advocate* adds:—"From what we have seen and been able to learn of delicious fruits in Texas, we have no doubt that this climate is peculiarly adapted to the production of Pears; and that apples, of the right kind and with proper attention, may be also successfully cultivated here."

CROPS.—A visit to South-western and Cherokee Georgia confirmed our previous opinion of the crops of the State. The cotton in every section is very small and backward, and though in a healthy and growing condition, yet under the most favorable state of circumstances to be hoped for, must fail to produce an average crop. The wheat crop already harvested, is one of the largest ever made on the same land, and is said to be of a very superior quality. A most abundant yield of corn may be expected, the crops of that grain in every section, with but few exceptions, being in a most promising condition.—*Sav. Georgian* 22d July.

CROPS, WEATHER, &c.—Our advices from different parts of the State are, on the whole, favorable to the growing crops. Corn and Cotton, except in some neighborhoods where the rather protracted drouth has prevailed, are satisfactory to the planters. Recent rains, in this section, have revived the Corn very much, and the setting cars will be filled. Cotton is late, but promises very fairly. We may hazard the prediction that full three-quarters of a full crop will be made in this State, which will not be the case in other States.—*Tallahassee Floridian & Journal*, July 25.

CROPS.—A portion of some Cotton fields have been ruinously inundated by the recent heavy rains. Some of our planting friends are dreadfully in the grass. Some have prospects of an average yield. In some fields the Cotton and Corn look as well as could reasonably be desired; in others both are very unpromising.

On last Saturday the heaviest rain within the memory of our oldest citizens, fell at this place. From 5 o'clock, A. M., till noon, it fell to the depth of seven inches on a level.—*Grenada (Miss.) Republican*, July 4.

CROPS IN SOUTH CAROLINA.—Owing to the lateness of the spring, says the *Kingstree Star*, the Cotton crop is at least one month behind time.

We have had several fine rains lately, says the *Lancaster Ledger*, which, in conjunction with the warm weather, has improved the crops.

We are almost daily refreshed with rains, says the

*Chester Standard*, and the general impression now is, that we will make plenty of food for both man and beast.

Very few complaints are heard, says the *Darlington Friend*, since the abundant rains.

The Corn crop, says the *Abbeville Independent Press*, generally, is very flourishing, and promises an abundant harvest: the Cotton is healthy, but very backward.

We are happy to be able to report a very decided important improvement in the crops in this District, says the *Fairfield Herald*.

**THE CROPS.**—The Corn crops in Madison, Yazoo, and Holmes, from what we observed, are indeed promising. The late rains we have had, has greatly benefited them. The Cotton crop, though, is far behind, and will undoubtedly be small. The Cotton of Holmes, from what we could observe, is doing better than that of either Madison or Yazoo.—*Lexington (Miss.) Advertiser*, July 24.

The weather is wet—the streets are wet—nothing is dry but our exchanges, and they are very dry.

We never did see so much and so heavy rain, if it can be called rain. It don't rain—it pours—it runs right out. The moon is a wet moon. Her horns don't turn up enough to hold water. It comes down from the clouds in sheets, and it comes down in right smart showers, without any clouds at all. We must be getting the rain intended for the whole State. Evidently the middle and western counties have not had their share. There is no red water in the Cape Fear.

We don't want our sand hill to float off, as we think it will, unless the rain "holds up," therefore do we anxiously desire its holding up. There is a medium in all things. A quart among one isn't much, but a gallon or so might make a man somewhat tight.

The grass grows very well. It is also said to be a good "season" for young ducks.—*Wilmington (N. C.) Daily Journal*, July 24.

The rains have been so abundant that all the demands of the growing crops have been answered. We fear the Cotton has been already injured, especially on low lands. The country is generally healthy.—*Albany (Ga.) Patriot*, July 30.

We have been favored recently with fine showers, which have replenished our cisterns, revived vegetation, and infused throughout our community a general confidence in the wisdom of an over ruling Providence.

The Wheat crop of this county, which is already harvested, was fine. Corn and Cotton look well, and without some sudden disaster, they will produce good yields. The former crop may now be considered safe.—*Victoria (Texas) Advocate*, July 18.

**OLD TIME RAINS.**—It seems that we have once more struck up with the good old times and the good old fashioned rains that used to refresh the earth and cause it produce abundantly. There is no want for rain in all this section of country—as far as we can learn the ground is thoroughly wet—and the prospect is now for good Corn crops, notwithstanding the disadvantages and drawbacks of the early part of the season. Cotton is not doing so well, and even with a late fall and the most favorable circumstances attending its growth and maturity, a short crop generally, in this section, must be anticipated.—*Newnan (Ga.) Banner*, July 31.

**THE CROPS.**—The planters from every section of the Southwest, with the exception of a few localities, inconsiderable in extent, concur in the opinion, that the Corn and Cotton crops of 1857, will exceed largely that of last year. The quantity of Wheat raised this year in Tennessee and Mississippi is more than double that of 1856.—*Memphis Eagle*.

In the northern portion of Louisiana the Corn and Cotton crops look flourishing and promising. Two or three seasonable rains will insure an abundant yield. The Cane crop is doing remarkably well.

The *Jefferson Herald* speaks of partial rains in Eastern Texas. With good seasons, that paper says, heavy crops will be made in that section.

In portions of Mississippi the crops are said to be doing finely. The *Yazoo Banner* looks forward to a maximum yield of both Cotton and Corn.

In Missouri, the Corn, Hemp, Oat, and Clover crops, are more promising than four weeks ago, owing to the fall of late rates.

From Middle Tennessee our accounts represent the grain crops in a flourishing condition. The people are rejoicing over the promise of abundant harvests.

In North Carolina, the *Charlotte Whig* reports that the farmers in that vicinity have begun to harvest their Wheat, and there is a prospect of a very large yield.

The newspapers report that the crops in Ohio, Illinois, and Indiana, are late, but very promising.

**GRAND TIMES IN EAST TENNESSEE.**—The editor of the *Knoxville Register* is happy over the accounts lately received in regard to the crops. Hear him:

"Hard times" will have to surrender now. Never in the history of East Tennessee have our farmers gathered such a harvest as they have been blessed with this season. Wherever we see a farmer we see a cheerful countenance. The Wheat crop in quality and quantity, is by far the best ever grown in this part of the State. The Oat crop seems to be nearly as good; and Corn, although small for the time of year, nevertheless has a good color, and, with a fair season, will yield abundantly. This is truly the farmer's 'year of jubilee.'"

**COTTON AND CORN.**—A correspondent writing to the *Montgomery (Ala.) Mail*, under date of Butler County, July 24, says: "The terrible complaints of sorry crops, which have been rung for some weeks past, are turning out to be 'much ado about nothing,' except in some localities in this county, where they have had no rain, the crops, both of Cotton and Corn are doing 'indifferently well,' but generally the farmer will reap a generous return for his year's labor. I heard an intelligent planter say, yesterday, that he had seen Cotton with a crop of bolls and blooms that would make one thousand pounds per acre. and that he never saw a finer weed. Wherever the rains have been general, the crops were never better. This county will send more Cotton to market this year than ever before. Since last Monday copious showers have refreshed perishing vegetation, and, as the brokers say, everything looks buoyant."

**CROPS.**—Promise a fair yield, up to this time. The rain which we have had during the last three days has rather helped than hurt them.—*Red River American*, July 25.

**THE CROPS AND THE RAINS.**—We fear some considerable injury to the Corn crops of this section, from the excessive rains with which we have been visited during the last few weeks. We hear a good deal of complaint from portions of New Hanover, Duplin, and Onslow.—*Wilmington (N. C.) July 31*.

**COTTON AND SUGAR CANE.**—A friend on Flint River, Dooly county, Georgia, writes us July 24th:

"The prospect for the cotton crop is poor—five-eighths of a crop is all that we can now with safety expect to make. Now, after a two months drouth, we have an excess of rain.

"I have a fair crop of Chinese Sugar Cane, about ten acres. I selected six different kinds of soil to plant it on, and succeeded best on light gray sandy soil, somewhat manured."



### APIARY, OR BEE-HOUSE OF MR. LATASTE.

EDITORS SOUTHERN CULTIVATOR—In answer to the numerous inquiries from distant friends, I respectfully present a cut of my Apiary.

The centre building is twelve feet long, five wide and six in height. The two wings are of the same width, but five feet in height and twenty long; which will give you a house of sufficient length to accommodate nineteen hives: five under the centre building, and seven under each of the wings. The house must face the south, be made of good lightwood posts, and weather-boarded at the two ends and on the back. A strip is to be nailed to the back posts, with another running parallel, secured to short ones, which gives you a support for the hive stands. I commenced by placing my hives on a stand of one plank, but experience has taught me that each hive should stand on a separate bench, as the bees are thereby prevented from passing from one hive to another—a practice that would eventually operate to the injury of the Apiary. The hives should stand at least two feet from the ground. To carry on your work in systematic order your hives must be numbered so that every operation may be noted in a book kept for that purpose.

I hope bee keepers will at once provide such a house for their bees. It can be cheaply made, and its advantages are so apparent that a single glance ought to satisfy all who are not wilfully blind (in which category I include all those who contend that bees flourish better when exposed to the heat of summer and chills of winter than when they are protected from all the disasters caused by a want of such protection) that the true policy is to keep bees under a good shelter. The cedars seen in front of the house are the very things for the bees to settle on. They almost invariably cluster on the lower limbs, but sometimes they choose the body of the tree, in which case they may be easily brushed down with a few feathers.

Amateurs may ornament these houses so as to make them present quite a handsome appearance; but whether plainly or richly made, let them be well finished, so that there may be as few cracks as possible, as these only serve for spider-holes and harbors for other insects, whose presence about the Apiary may well be dispensed with.

I will take this occasion to make one or two remarks to my friend, Mr. McGehee, who seems to be still in doubt as to whether bees gather honey from flowers or not. I thought the questions I propounded to him, and which he has not answered, should have been conclusive enough,

but as he thinks differently, I will pursue the subject a little further. In the first place, then, I would like to be informed whether Mr. McGehee believes that bees deposit the identical substance taken in the body. Anticipating an affirmative answer, I would ask him to account for the fact that in localities where the white clover abounds, as in Herkimer County, New York, for instance, the honey is much whiter than where the bee has to depend on buckwheat and other inferior flowers. It is a well substantiated fact that the honey from the *sainfoin* is superior to all other, at least such is the information I have derived from those who have seen it. These facts must prove my side of the question, unless Mr. McG., can show that honey dew is different in different sections. But Mr. McGehee says that his idea is not of recent date. As well might he express a doubt as to the roundness of the earth, or the attraction of gravitation, and afterwards support his doubt by pleading that such doubts existed in former times. In the ancient poets we read of the *king bee*, in Shakspeare the same; many bee-keepers of the present day maintain the same position, yet every intelligent apiarian knows that the hive is governed by a *queen*.

I must say that the experiment of Dr. Bevan, to which Mr. McGehee calls my attention, is anything but satisfactory, and hardly think that he would be willing to rest the establishment of a great principle on so simple a trial. In the first place it was not fair to confine the bees in a tight room with the expectation of proving much. Then, again, perhaps the flowers furnished the bees were not such as they would have chosen had they been left free to make their selection. But, says Bevan, as soon as honey was placed in the room, they went to work finely. Yes, I would say to Mr. McGehee, that if he will place plenty of honey about his hives, he will find that his bees will go no farther to get their supply. Bees are very industrious, but they rather make their load at one place, in preference to flying from flower to flower. I presume Mr. McGehee has noticed this when robbing his hives.

Mr. McGehee desires me to answer this question, "If flowers give or yield any honey, why is it that bees do not swarm during the greatest flowering season, but wait till after the greatest flock of flowers is over before they commence swarming?" In answer, I would say that with me bees commence swarming early in April and continue till late in May, during which time we have a rich profusion of flowers; and from the time that peach blossoms open till the last flower has bowed its head to the chilling winds



of winter, the busy bee may be seen among them; and will Mr. McGehee tell me that they are gathering bee-bread all this time? The thing is impossible!

I have been thus particular, because I respect the opinions of this gentleman, and think that if he will consider the matter a little closer, he will find that he is in error on the point we have been discussing.

Respectfully, V. LA TASTE.

Cedar Green, near Augusta, Ga., July, 1857.

#### SUGAR FROM THE CHINESE CANE.

Messrs. HEDGES, FREE & Co., of Philadelphia, who have taken much pains in the getting up of proper Mills, Boilers, &c., give us directions for Sugar making through the *American Agriculturist*. It is probable that the crystalization of Sorgho Syrup will only be attempted the present year by a few of the large growers, but it is well that all others interested should know the process, which is set forth by these gentlemen as follows:

The cane must be allowed to mature fully, not attempting to work it until the seed is fully out of the milk, and as some of the tillers will be rather later than others it will no doubt be better to throw them out for fodder than jeopardize the rest. The leaves should be striped off before cutting, and the top cut off with the seed some two-and-a-half or three feet down, as there is not much saccharine juice in the upper end. Then, if your apparatus is ready, cut, and grind as fast as you can cut, and boil as fast as you grind, since the less time the stalks or cut cane is exposed the better. The juice, if concentrated by the usual process will pass through two sieves—first, No. 8 and then No. 16 set over a large tin funnel immediately under the mill, (which will be set about three feet from the ground upon three posts firmly bedded in the ground about three feet.) This funnel is contracted to a pipe of two inches diameter, and running under the ground past the horses' track, and entering a tank either lined with tin or painted thoroughly, and varnished so as to be impervious to the juice and easily washed clean, when left idle for even one hour. The juice is raised by tin buckets or a tin or copper pump from this to a clarifier. This may be of sheet iron, No. 8, and about twelve inches deep and large enough to fill your first kettle, and set higher with draw-off pipe and stop-cock entering at the bottom. This clarifier is set so that the heat is applied under it after leaving the range of boilers, and may be shut off by a damper, into another side flue, while you discharge this pan. The heat being applied slowly, a thick scum rises and when near boiling you change dampers and draw off until the juice begins to show sediment or scum, then clean the pan and fill again, and so on. Now in this first kettle you add lime well slacked and sifted, until your juice will not change the color of litmus paper, (which can be got at any good drug store quite cheaply.) While the juice is acid, it will change it to a reddish hue, and if thus boiled will neither granulate nor keep sweet as molasses. With our two horse mill of rollers seventeen inches long, we use three boilers holding 60, 40 and 20 gallons, with the latter immediately over the fire and set with flaring walls or jambs, rising above each about 6, 8 and 10 inches, and completely cemented with water lime. The last or 20 gallon boiler should be higher than the 40 and that above the 60, so that the scum will run through the gap into the next kettle behind successively. The scum should also be thrown back whenever accumulated into the hindmost kettle. If you have no experience in testing the syrup in the "battery," a thermometer made for that purpose, can be obtained in most large cities for a dollar or so. It requires to be graduated up to 250°, as about 240° Fahrenheit is considered the proper point. Should

the heat rise above this, you must open your fire doors and throw over the fire, an armful of begasse from the mill, and then discharge the syrup as quickly as possible and refill from the next kettle, thus continuing successively.

The coolers into which you discharge may be of good clear white pine without paint inside, and 12 inches deep and large enough to hold 4 charges, and then left to cool and granulate, or if you make molasses only, you will use barrels, staves of oak and heads of pine or cypress thoroughly made.

In regard to crystalizing the sorgho sugar, we, to-day, [July 16] went with Col. Peters, to the sugar refinery of Messrs. Eastwick & Bros., 73 Vine-st., of this city, carrying with us some sugar made from the Sorgho, by Col. Peters in Georgia, and by Mr. Wray in France. These specimens were subjected to the severest chemical test, and examined under a powerful microscope, and both proved to be true crystalizable sugar and not glucose. As the examiners are perhaps not surpassed for accuracy in this country—not even in Boston—we deem these experiments highly satisfactory. They promise a public report of the examination soon.

Yours, &c.,

HEDGES, FREE & Co.

#### KEEPING CORN GREEN FOR WINTER.

EDITORS SOUTHERN CULTIVATOR—Seeing in your last number a plan by which to keep corn in its green state during the winter, it calls to mind a plan I adopted in the year 1851, which is as follows:—My corn was planted on the 15th July, and consequently was very late. On the day that we had a killing frost at night I had my corn, which was planted on a very rich piece of bottom land, cut down to the ground with a weeding hoe, and with the fodder all left on the stalks, and then hauled up and carefully stacked around my stable loft, about 12 or 15 inches deep. In that situation it remained during a large portion of the winter, and occasionally we had a delicious dish of good, well flavored roasting ears, and the fodder served for the stock.

If you think this worth anything you can use it as best it suits you; if not, put it with the other rubbish.

Very respectfully,

DANIEL HARRIST.

Mount Hickory, Ala., Aug., 1857.

IMPROVEMENT OF SANDY LAND.—*Editors, Southern Cultivator*—What would be the effect of five bushels of lime sown broadcast to the acre on sandy land that will not produce, with the most careful cultivation, one 500 pound bale of cotton from four acres; or sown in the drill one-half ashes mixed with the lime? If that amount is too small, what number of bushels would produce a third or half more cotton? Please answer in the next number of your valuable paper.

A CONSTANT READER.

It is impossible to give a reliable answer to questions like the above. Agriculture is not an *exact* science; and its most important truths are reached by experiments. Try ashes and lime—ten bushels of good ashes and five of lime per acre.

L.

A writer in Hunt's *Magazine* suggests a new plan of extinguishing fires, worthy, certainly, of trial. It is simply saturating the water of the fire engine with common salt and potash, both very cheap articles, and both acting together to impregnate the wood so that the flame cannot spread any further; i. e. the muriatic acid flies off, and the soda remains as upon a glazed surface.

The suggester of this idea even goes on to say that many a fire, which is within reach, might be stopped without any engine, by discharging finely powdered clay, lime or chalk, through a tube on the blaze.



## The Southern Cultivator.

AUGUSTA, GA:

VOL. XV., NO. 9.....SEPTEMBER, 1857.

### ANSWERS TO CORRESPONDENTS.

**MACHINE FOR CUTTING DOWN TREES.**—K.—We have received from EVELETH & BISSELL, 33 Pine street, New York, a circular giving a cut of this new machine, and we extract from it the following statements:

"This machine will easily do the work of from 4 to 8 first-rate wood-choppers, thereby saving much time, labor, and hire of hands. A 2 foot tree can be felled in from 8 to 12 minutes. The larger the tree the more time is saved, proportionately. It will work equally well on hard or soft wood. It will save several feet of the most valuable part of each tree, as it will cut within 5 inches of the ground. The tree is cut "square off," so that no re-butting is required to fit the log for the saw-mill. Almost nothing is lost by chips, as the cutter takes out a section of little more than half an inch in thickness. The stump is left flat, which hastens its decay. It will girdle trees, if desired, more quickly and satisfactorily than by any other method. Price of Machines 2 feet in diameter, \$60; 3 feet in diameter, \$90; 4 feet in diameter, \$120; 5 feet in diameter, \$150. The price of machines of still larger size will be in the same proportion, according to the actual cost of construction. Full directions for use will accompany each machine." This is all the information we possess on the subject.

**OSAGE ORANGE TREES.**—P. A.—Yes. The *Maclura* or Osage Orange, is a beautiful ornamental tree, of an elegant, drooping habit, and a shiny, glossy green foliage. The editor of *The Horticulturist* speaks of one of these trees now growing on the grounds of the late Dr. Edmondson, near Baltimore, as follows: "One of the most extraordinary things in these grounds, and one of the most beautiful we ever saw, was an Osage Orange tree, about twenty-four years old. Its leading shoot had been destroyed, and it had become recumbent to surprising degree. By pacing the circumference over which it had spread itself, we found it covered the space of *one hundred and sixty-five feet*! It is highly ornamental, in this condition, and was full of fruit. The limbs laid about with a profusion that was positively beautiful and wonderful," etc. The wood of the Osage Orange is close-grained, tough, elastic, and very valuable, and it ought to rank high as an ornamental tree. It is dioecious or sexual in its blossoms—bearing the male blossoms on one tree and the female blossoms on another. These trees should be contiguous in order to raise good seed.

**Strawberries.**—Mrs. A. L. C.—See July number for an article on this subject. "Wilson's Albany Seedling" is undoubtedly one of the most valuable new varieties, though not fully tested here yet.

**KEEPING CHINESE SUGAR CANE.**—C. N. H.—A cool cellar of nearly equable temperature, or a dry pit covered with two or three feet of earth, and a plank "shelter," would probably enable you to keep your cane for a considerable time. Strip all the leaves off—cut off the tops, or seed heads, with a foot of the stalk, pile them so the air will circulate through them, and do not put too many in a mass when you pack them away. We believe the natives of Caffraria simply bury their cane in the earth, and use it as fast as needed. The new work on Sorgho and Imphee, by Messrs. Olcott, Wray, and others, will, we doubt not, give us valuable information on all points connected with these plants.

**MAD DOG.**—H.—Kill the animal at once, no matter how valuable. Hydrophobia is too horrible a malady to risk—there is no "certain" cure for it. Snake bites can be cured, but the same remedies do not apply in both cases. The symptoms you describe are not certain indications that the dog is rabid; but he should be kept chained and watched closely.

**CONCRETE HOUSES.**—J. K. L.—If you have, convenient, plenty of large and small rock, and, as you say, "lime for the burning," get a skillful mason or brick-layer, and build your house. It can easily be finished (the walls) in a month or six weeks, with a good set of hands. See May and August numbers. We are more and more pleased with our concrete house. It is delightfully cool and pleasant, during these sultry days.

**KEEPING POTATOES.**—Wm. W.—It is often impossible, almost, to keep the Irish Potatoe from sprouting and spoiling, but a correspondent of the *New York Times* says: "The method of the old sea captain should be known everywhere, by farmers, housekeepers, and venders of vegetables generally. It is by destroying the germinating principle in the potatoes. This he effected by simply boiling them five minutes, after which they kept for months, and may be boiled as wanted. Might not other vegetables, and even some fruits, (say apples,) be treated the same way, and thus be preserved better than now?"

**CHINESE SUGAR CANE SEED** begins to ripen at the top of the head or bunch, and is fully ripe and fit to cut when the lower short panicles fill out and turn black.

**SUGAR MILLS.**—L. B.—A very good little Mill may be obtained from L. HOPKINS & Co., of this city, for \$50. See mode of making Sugar elsewhere in present number—also extracts from a letter of M. VILMORIN, of France.

**RESCUE GRASS SEED.**—P. A. C.—You can obtain this seed from JACOB OTT, of Biloxi, Miss., at \$20 per bushel. See notice of Dr. PHILIPS, in present number..

**PLANTING TREES CLOSE.**—L. Z.—We consider fifteen feet each way amply sufficient for Peach trees, and twenty feet for Apples or standard Pears. Dwarf Pears and Apples may be planted eight or ten feet apart. At 15 feet apart an acre will contain one hundred and ninety-two trees; at 10 feet, four hundred and thirty-five trees, and at 8 feet, six hundred and eighty trees. We deem it an advantage that the trees should shade the ground entirely, and if your orchard is properly prepared, and cultivated right, for the first two or three years, it will never need a turning-plow afterwards. When the branches begin to interlock, a semi annual stirring up of the soil around each tree, with a German pronged-hoe, (such as the vine-dressers of Ohio use,) will be all-sufficient. The *Georgia Citizen*, in acknowledging the receipt of some fine Peaches, from CHARLES COLLINS, Esq., gives us another evidence of the advantage of close planting as follows: "Mr. COLLINS' trees standing close to each other were somewhat protected from the severe late frost of last Spring, and therefore, he is one of the very few, in this section, who is able to show such fine speci-

mens of fruit. We understand, also, that his Grapery gives promise of a liberal yield of well matured fruit, in a short time."

### GEORGIA WINE.

WE are indebted to Mr. CHARLES AXT, of Crawfordville, Ga., for a box of his "Still Catawba Wine," of the vintage of 1856. It is put up very neatly, in strong "Hock" bottles, made to order; is well corked and waxed, has a tastefully engraved label, and was packed in a manner that indicates a thorough acquaintance with the business. We mention these details to show that the Georgia Wines of Mr. AXT are now fairly in the market, and that a new era in our agricultural industry is inaugurated. Hitherto we have had very little Wine made in Georgia, though syrups and cordials of grape juice, sugar and whisky, were not uncommon. These were innocently supposed to be *wines*, and drank as such, with sufficient relish; but their day is now over. No person of the least discrimination can fail to notice the immense difference between such mixtures and the pure juice of the grape, as it comes to us in the "Still Catawba" of Mr. AXT. In speaking of the *quality* of this Wine, we do not, of course, pretended to any nice *connoisseurship*; our taste being uncultivated and purely *natural*. We judge of Wine mainly by its after-effects. We rarely find any of the "imported Wines" (so called) that we can drink over night without paying the penalty of a headache, nauseated stomach, and disordered nerves, the next morning. From *pure wine*, however, there is no danger of any such unpleasant "reminders." It exhilarates and strengthens, but does not confuse; and when taken at proper times and in moderate quantities, cannot but be beneficial to most constitutions. The Wine of Mr. AXT has a fine "boquet," a beautiful color, a pleasant flavor, and a remarkable "body" for its age. In the latter respect, it far surpasses the Ohio Wines of the same class, and we shall be much mistaken if it does not speedily achieve a high reputation, wherever it is known.

### WINE PREMIUMS AT LOUISVILLE FAIR.

A Committee of the U. S. Agricultural Society state that the coming Exhibition, (which opens on the 1st day of the present month) is designed to represent fully the present state of American Agriculture, and in addition to the display of Stock, Implements and Machinery, will include Farm Produce and substances immediately derived therefrom. Among them, American Wines will occupy a prominent place, and the Committee solicit deposits of the best samples from all parts of the Union. The Wine-growing interest of the country is steadily increasing, and every consideration demands that its importance should be strikingly manifested at our National Fair.

A cool and extensive Wine cellar has been prepared upon the grounds, for the safe keeping of contributions of Wines, in which they will be stored under the charge of a careful superintendent until the time for their exhibition.

Below will be found a List of the Premiums offered for Wines. Communications and packages should be ad-

ressed to L. A. WHITELEY, Assistant Secretary, United States Agricultural Society, Louisville, Ky.

### CLASS IX—NATIVE WINES.

For the best dry Catawba, 1856.....	Diploma.
For the second best do. 1856.....	\$5 00
For the best do. (older).....	Diploma.
For the second best do. do. ....	\$5 00
For the best Wine from the Herbemont Grape.....	Diploma.
For the second best do. do. ....	\$5 00
For the best Wine from the Schuylkill or Cape.....	Diploma.
For the second best from do. do. ....	\$5 00
For the best Wine from the Isabella Grape.....	Diploma.
For the second best from do. do. ....	\$5 00
For the best Wine from any other Grape. ....	Diploma.
For the second best from do. do. ....	\$5 00
For the best Sparkling Catawba Wine.....	Diploma.
For the second best do. do. ....	\$5 00
For the best Wine from any other Grape.....	Diploma.
For the second best do. do. ....	\$5 00

### OUR BOOK TABLE.

THE HORTICULTURIST, for August, is a number of more than average merit. Its leading articles are: A Trip to Cuba and the Southern States, No. 3, with cuts; Fruit Culture—the Orchard House; Visits to Country Places; The Leaf-cutting Bee; Memoir of Andre Michaux; Shrubs with Ornamental Berries; Influence of the Stock upon the Graft; How to make Strawberry Beds; Garden Vegetables; Random Notes, &c.; Foreign Notices; Editor's Table; Calendar of Operations, &c., &c. Also, ten beautiful illustrations. Terms—plain edition \$2 per year; colored edition, \$5 per year. Every lover of Fruit, Flowers and Vegetables, should have it. Address: ROBERT PEARSALL SMITH, Philadelphia, Pa.

HOW TO DO BUSINESS.—A Pocket Manual of Practical Affairs. 12mo., pp. 156. Price, paper 30 cents, muslin 50 cents. New York: FOWLER & WELLS, publishers.

With this volume the popular series of the publishers' "Handbooks for Home Improvement" is brought to a close. The author has made free use of the suggestions and rules of experienced writers on the subject, and collected in a brief space the pith and essence of the time-honored precepts which, from Franklin to Freeman Hunt, have been held up as the guides to business success. His standard of mercantile morality is elevated, and he presents his wise and wholesome inculcations in a plain, off-hand, common-sense manner, going at once to the heart of his subject, without the least circumlocution. The volume forms an excellent finish to the series, which, as a whole deserves a permanent place in every library.

"How to Write," "How to Talk," "How to Behave," and "How to do Business," same size, price, and publishers. \$1 pays for the four works in paper, and \$1.75 in muslin, separate. \$1.50 complete in one large volume.

Since writing the above, we have also had an opportunity of tasting the Wines of our friends, McDONALD, and CARADEUC, of South Carolina, about which we shall have much to say hereafter.

RUSSELL'S MAGAZINE, sustains itself vigorously, and is, in all respects, a first-class Southern periodical. The leading papers of the July number are: "Cursed Money;"

"Estcourt;" "The Rhapsody of a Southern Winter Night;" "Don Emanuel Gregorio;" "What is Poetry;" "A few Thoughts on Southern Civilization;" "My Neighbor's Rooster;" "Departure of Youth;" "The Initials;" "Thoughts on Coal—and Its Future Importance;" "Retirement;" Editors' Table; Literary Notices, &c., &c. Every Southern family, of taste and intelligence, should subscribe for this Magazine, at once. Terms—\$3.00 per annum. Address: "*Russell's Magazine*," Charleston, S. C.

ETHEL SOMERS; or, The Fate of the Union. By a Georgian. H. D. NORRELL, Augusta, Ga. 1857.

This work presents a very able defence of Southern Institutions, and contains many graphic and natural pictures from Southern life. The author deserves well of his countrymen, and we hope to see "Ethel Somers" on every book-shelf and centre-table in the Sunny South. If there are any who lack arguments to baffle the Abolitionists, they will find them clearly and forcibly set forth in this work. It may be ordered from the publisher, (H. D. NORRELL,) and all booksellers.

Received, also, *List of Premiums*, for the Second Exhibition of the Kentucky State Agricultural Society, to be held at *Henderson, Ky.*, from the 13th to the 17th of October. *Premiums and Regulations*, for the Eight Annual Fair of the Ohio State Board of Agriculture, to be held at *Cincinnati, Ohio*, from the 15th to the 18th of September. DEBOW'S REVIEW, for August—an excellent number. The "*Florida Farm Journal*," a neat and well conducted Agricultural monthly, of 16 pages, published by GILLES & REYNOLDS, Palatka, Fla., at 50 cents per annum. *How to Get a Patent*—an excellent and most useful little pamphlet, for Inventors, &c. It can be obtained, per mail, from FOWLER & WELLS, 308 Broadway, New York, for four letter stamps, or 12½ cents.

MUSCADINE CHAMPAGNE.—We are indebted to some unknown friend for a bottle of very pleasant sparkling Wine, made from the common Muscadine or Bullace. The generous donor will place us under further obligation by sending his name, with the recipe for making the Wine, and permission to publish it.

#### CHINESE PROLIFIC PEA---MR. FLEMING'S Crop.

TO-DAY (August 8th) we had the pleasure of riding over the Chinese Pea crop of our neighbor, Mr. JAMES P. FLEMING, and were delighted with the splendid prospect which his fields present. Most of his Peas were planted on poor uplands, dropping from one to three Peas in a hill, at the distance of *four feet* each way. They came up weak, delicate, and unpromising, but, with the first really warm weather of summer, they started to grow off vigorously and now present a sight such as is seldom seen. In many places the vines have spread and interlocked *covering the whole ground*, and presenting a dense mass of vegetation *from eighteen inches to two feet deep*, by actual measurement. As yet they show little sign of forming pods, and it is, therefore, reasonable to suppose that the next two months will greatly develop their growth. This Pea bids fair to be of the greatest value for

stock, and as a renovator of our poor, worn-out lands. We shall watch its farther growth and bearing properties with interest, and solicit, for publication, the experience of all who have given it a *fair* trial.

#### NEW ADVERTISEMENTS.

READ the following new advertisements in present number:

Brahmin Cattle.  
Washburn's Patent Agricultural Implements.  
Hyacinth's, Tulips, &c.  
To Seedsmen, Planters, &c.,  
Fruits and Flowers for the South.  
Gloaming Nursery.  
Grapes for the South.  
Devon and Alderney Cattle for sale.  
Situation Wanted.  
Patent Rights for the South, &c.  
Cashmere Goats.

#### A GREAT COFFEE POT!

COFFEE is the daily drink of millions of people in the United States, and yet how seldom do we get a really good cup of this unrivalled beverage? To make it right, get the best Mocha or Old Government Java; roast it *quickly*, and watch it carefully until every kernel is of a clear *light brown* (not black); grind it a little coarser than common grits or grist, and make it, according to directions, in "Hall's Patent Improved Condensing Coffee Pot." This Coffee Pot may be obtained from S. S. JONES & Co., of this city.

NEGROES AND COTTON.—The New Orleans *Delta* estimates the number of Slaves at the South at over three and a half millions, and their aggregate value, at present prices, at fully sixteen hundred millions of dollars. The Cotton plantations in the South it estimates at about eighty thousand, and the aggregate value of the annual product, at the present prices of cotton, is fully one hundred and twenty-five millions of dollars. There are over fifteen thousand Tobacco plantations, and their annual products may be valued at fourteen millions of dollars. There are two thousand six hundred Sugar plantations, the products of which average annually more than twelve millions. There are five hundred and fifty-one Rice plantations, which yield an annual revenue of four millions of dollars.

NEW CABBAGE.—The Winningstadt Cabbage is a new variety, the seeds of which have been recently distributed from the Patent Office at Washington. The Lewisburg (Pa.) *Chronicle* thus speaks of it:

"This is a new variety of Cabbage. It is a very early kind, with small heads of a sugar-loaf form, and very compact and solid, and of course heavy for its size or bulk—so compact that no worm or other insects can get between its leaves, and hence its interior, which is of surpassing whiteness, is always nice and clean, possessing a richness of flavor equal if not superior to any variety of the cabbage yet known in these parts."

SEA ISLAND COTTON.—A subscriber, writing from Savannah, under date of August 10, says:

Excessive rains for six weeks have rendered the crops of Sea Island Cotton on the coast of Georgia very precarious, if not unpromising, Corn crops abundant.

**SHADE TREES AROUND DWELLINGS.**—The trees near houses are beautiful, but they never should be so closely planted as to exclude the bright sunshine, and thus cause dampness in the dwellings. When trees spread out their broad arms, and prevent "Old Sol" from sending his cheering rays into every room in the house, their branches should be thoroughly pruned, or every intermediate tree cut down.

Dr. Hall, in his *Journal of Health*, says respecting light: "No room without the glorious sunshine is fit for any living creature—man or beast. The glorious sunshine, the free and boundless gift of a beneficent Creator, is the source of all buoyant, healthful life."

## Horticultural Department.

### PEARS ON THE QUINCE.

**EDITORS SOUTHERN CULTIVATOR**—As the demand for these trees at the present time is very great and annually on the increase, and as some prejudice has been promulgated at the North against them, I have concluded it might not be amiss to contribute my mite of experience. I do not know the number of varieties I now have under cultivation—probably about two hundred, more or less—many of which have been in bearing for several years past, giving me perfect satisfaction in every respect. I prefer the low pyramid form to any other, and have trees 6 to 8 years from the bud which are now twenty feet high, and 6 to 8 feet across the limbs near the base; all are thrifty and healthy, and it is not unusual for them to make shoots of from 4 to 6 feet in a single season.

I would take great pleasure in exhibiting my trees to those who have any doubts or scruples as to their succeeding well at the South, and have the vanity to think I can show as fine and thrifty a lot as can be found anywhere and on any species of stock. I have but three unhealthy trees on my premises, one of which is a White Doyenne, one Vicar of Winkfield and the other an English Jargonelle, these were all weakly when I procured them from the North some years since, being attacked with the blight the second year after transplanting, but which I have thus far prevented from dying and ultimately hope to cure.

The Pear at the South, worked on the Quince, grows more rapidly and larger than at the North, and will flourish equally as well on high as well as low land provided it is generously manured and cultivated. From present appearances we have no hesitation in saying, that many varieties will, in the course of a very few years, attain the height of twenty five to thirty feet and stocky in proportion.

Some varieties are much more rapid in their growth than others, even from the time of budding or grafting, whilst some others again start slow and feebly, and after a year or two grow off vigorously. For standard orchard trees, we prefer them worked on the pear stock, for the reason alone that they will, in time, make larger trees and be longer lived, as it is well known that the longevity of the Pear is exceeded by few if any trees. To those who intend cultivating but few trees, and wish to have them in bearing early, we would recommend those worked on Quince stocks. In years gone by, we feared they would prove more liable to the disease known as blight than those worked on the Pear stock. Experience has taught us our fears were groundless, for we have not lost a tree with that disease in five years past.

J. VAN BUREN.

Clarksville, Ga., 1857.

### THE CURCULIO—ITS HABITS, &c.

**EDITORS SOUTHERN CULTIVATOR**—With all due deference, I must differ from the opinion set forth in your answer to my queries on the subject of the Curculio. By referring to your remarks in the June number, I think you will acknowledge that they remain unanswered.

You will perceive that I take it for granted that the worm of the Curculio, like that of other insects, has a certain definite time for passing through the various stages of its transformations. Is this a fact or not? For, on this depends the pertinency of the query. That the worm does arrive at maturity during the maturity of the fruit, every one who has ever eaten a Plum, Nectarine or Peach, infested by this pest, can testify. There he lies reeling in his brown, mushy bed near the nut, and there are the freshly perforated holes in the flesh of the fruit, through which others have cut their way out.

We know that the Curculio fly punctures the young fruit and deposits its eggs soon after the dropping of the flower. If (as I have supposed above) the periods of growth and transformation are common to all, then all the eggs which were deposited at the same time, should also arrive at maturity together. But we know that the late Peaches have worms also at their time of ripening. Hence, these two horns of the dilemma present themselves.

If the Curculio worm has certain stages to pass through and a certain time to effect these changes, then when the eggs which were deposited on the Early Tillotson reach their maturity by the middle of June, the eggs which were at the same time deposited on the October Peach, should be also full grown and cutting their way out; but this is not the case; for the October Peach by the middle of June is as hard as a hickory nut, and it is not until four months later that this Peach ripens. And if, to meet this difficulty, we suppose that the worm after cutting out of the June Peach passes through its chrysalis state, becomes a fly and deposits its eggs again, is not the October Peach then too old and hard?

But again, on the other hand, if the time of growth of the Curculio worm coincides always with the time of the fruit in which it is deposited (which time varies as much as 4 or 5 months), then it presents an anomaly and follows a law different from other insects, which have a stated and definite time for their transformation; and this is the other horn of the dilemma.

In my 2nd query the misprint of a word destroys its significance. I asked what becomes of the Curculio when "all the stone fruit is destroyed"—not "stem fruit."

Nor can I agree with you that "the Curculio very seldom attacks Peaches." My experience has taught me differently. They seem to prefer the smooth skin fruits, but in the absence of these, will take very readily to the Peach.

I am very free to confess, Messrs. Editors, my ignorance of the habits of the Curculio, nor am I aware of any source of information from which we may obtain a minute and accurate account. Those who treat of this insect do not give us its full history (as far as I have seen). What is the time occupied in its various stages of growth—as worm, pupa and perfect fly? Does it attain its full growth as worm during the green state of the fruit? How long and where does it pass its pupa state? Does it produce more than one brood in a season? In what state, and where does it pass the winter months? If it produces more than one brood, can it puncture and deposit its eggs on the half grown fruit? In those seasons when from late frosts all the fruit is destroyed, (as it was several years ago when we had that memorable snow storm on the 15th April) how do they propagate and continue their existence?

These things are necessary to be known from reliable



and accurate data, before we can obtain a full knowledge of its history, and be enabled then to use the proper means for destroying or lessening this pest to our fruit orchard.

INQUIRER.

N. B. — Whilst upon this subject, I would ask for information of the habits of the Peach Borer, *Egeria catrix*, say. At what season here in our latitude, it deposits its eggs? Where it passes the pupa state? and other facts connected with its habits which may enlighten us as to the most effectual mode of destroying them. With the extension of orchard culture, these are becoming important and interesting questions to us; and we invite information from all who are able to give it.

REMARKS. — The different species of insects are almost as numerous as the plants upon which they feed, and Entomology has not yet been studied to such an extent as it deserves. Even Dr. HARRIS, who is acknowledged to be the very best American authority, treats of the Curculio only in general terms, and we can scarce be expected to satisfactorily answer questions which are problems, not yet solved by any professional Entomologist.

Our correspondent says that the Curculio is also found in the late October peaches; but does he actually know it to be the true Curculio?

Our esteemed friend, "Inquirer," is known to us as a scientific and close observer, whose habits of investigation and opportunities are such as eminently fit him for studying the nature of the Curculio in all its transformations. May we not hope, that he, for the benefit of all lovers of fruit, will undertake the work, and publish the results? We shall also, be happy to open our columns to all who possess information on this or kindred subjects. DOWNING's works, BARRY's "Fruit Garden," WHITE's "Gardening for the South," &c., contain much that has a bearing upon the question, but nothing that may be considered specific or satisfactory, especially to the orchardist or fruit-grower on a large scale. See Patent Office reports for 1854, pp. 81, 83, for articles on the Curculio and Peach Borer. A really good and practical treatise on the Insects injurious to cultivated plants, and the best method of destroying or guarding against them, is yet to be written. Who will undertake the task? — EDS.

#### THE GRAPE CULTURE.

"Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise." Nevertheless, the moderate use of wine is not prohibited in scripture—and it is generally conceded that the inhabitants of wine countries are more temperate than those who live in the higher latitudes; in Russia, for instance, men eat tallow and swallow pure brandy! It is probable that in less than a quarter of a century from this time, wine will supercede in a great measure, the use of ardent spirits in this country.

The first thing to be observed in establishing a Vineyard is to select the best possible locality on the premises for that purpose. The crown of a hill slanting gradually to the South and inclining East, is the best position; avoiding, if possible, due East, North or West—protection by trees or building on the cold sides, if out of the range of shading the vineyard, is desirable. In middle and lower Georgia, all these precautions are not so essential as in higher latitudes and altitudes.

As to soil, if it be somewhat stony it is no objection;

very stiff clay is not as well adapted to the vine as mulato or good grey land. One acre of ground is as much as any one ought to undertake to cultivate at first, particularly if the German plan is to be adopted, and this appears from the success in Ohio, to be the best mode of cultivating the vine.

When the ground is cleared of stumps and roots let it be close plowed with a long scooter or coulter, and suffered to remain several weeks; after a rain plow it again with a large turning plow as deep as possible—then let the ground remain two weeks, or till a good rain occurs. Then lay off the ground by a line in rows running, due South and North, five feet apart, cross these lines due East and West four feet wide and plant the vines or cuttings at the intersection of the rows, which will be four feet by five. This mode, however, is not considered to be as perfect and durable as spading the ground throughout the entire plot; the spading may be performed in this way: after the ground has been prepared as above stated by the plow, commence spading at the first narrow row, spade all the ground from the first to the second line, throwing all the surface soil on one side, and the subsoil on the other, until the spading reaches to the depth of three feet; then throw the surface soil at the bottom of the ditch and the subsoil on the top—and thus proceed from row to row until all the ground is dug through. This is a tedious and expensive operation, but it has been found from experience that it gives more permanency to the vines, and renders them less liable to disease, and less affected by the vicissitudes of heat, cold and moisture—and doubtless, vines thus set, and properly cultivated, will live a century. By the old careless cultivation they have been known to live thirty-five to forty years.

After the land has been well spaded as above stated, it must be laid off into lines running due North and South five feet apart, and from East to West, lines four feet apart. If any stones have been dug out of the ground they should be piled across the hill sides where the greatest descent occurs, so as to prevent the land from washing. The ground must then be staked off at the intersection of the lines (4 by 5) and planted with one or two cuttings (2 is preferable) on the south side of every stake. The proper way to insert the cuttings in the ground is to procure a hickory pole five feet long and about two and a half inches in diameter, sharpen it at the smaller and lower end, and bore a hole at 2 feet from the lower end, and drive a strong pin into it—or if the pole has a branch at the proper distance, cut it off and leave four inches of it to the stem—with this pole make holes in the ground by pushing it in with the foot applied to the pin or branch; then insert the cutting about eighteen or twenty inches into the ground in a position nearly perpendicular, leaving only one eye out of the ground—hold the cutting by the left hand, and with the other, pour into the hole manure previously prepared and press it with a stick or the hand gently to the cutting—deep planting insures in a measure success in taking root. The cuttings should be moderately watered soon after they are planted—if both cuttings live one of them must be removed the following or the third year to fill missing places in the vineyard. Select a piece of ground 15 by 50 feet or more, (a level or rather moist spot is desirable) and set it with grape cuttings in rows three feet apart and eighteen inches in the drill as a nursery to supply deficiencies in the vineyard. Cuttings from young vigorous vines of three to five years old are preferable to older ones, and those cuttings having short joints are better than those that have long ones; the nursery should be planted the year previous to setting out the vineyard.

Vines with a smooth bark, such as Muscadine and Scuppernon, should be trimmed early in the fall, soon after the dropping of the leaf, say from the middle to the

end of November. Vines having rough bark, as for instance, the Warren, Devereux, Catawba, &c., may be trimmed during the months of December, January and not later than the first week of February.

Cuttings may be set out in December, January or February—early planting is generally more successful—cuttings set out late in November will frequently take, while those set out in February, if the weather should prove dry, will not live.

Every grape has its special locality, the Catawba flourishes and is generally cultivated in Ohio; because it is hardy and stands that climate, but we have a superior grape in Georgia, the Warren, which produces a wine allied to Madeira, and would be Madeira if treated as such; it is devoid of the mild flavor which attaches to the Catawba and Muscadine—even the old English grape, so called, is a better flavored grape than the Catawba, and makes a good wine. But the most reliable grape to cultivate in Georgia is the Scuppernong, because it is free from the dry rot and other diseases, and the birds do not prey upon it as they do upon the more delicate thin skinned grapes. The Scuppernong is a great runner and bearer, consequently it is not adapted to the narrow rows and low staked mode of cultivation—to grow it to advantage, it must have extensive arbors to run upon, and then it produces most abundantly. The Scuppernong makes a still, light, pleasant wine, and most excellent champagne.

The Warren, Devereux, Isabella, Black Florida, Catawba, and the old English white or violet are all well suited to the close drill and low staked mode of cultivation, such as is practised in Ohio.

Cuttings should be carefully selected and cut from 19 to 20 inches long, tied in bundles containing 50 each, with the ends intended to be inserted in the ground designated, and all placed in the same direction, they may be kept in a cellar with the ends on fresh earth until a favorable opportunity presents itself for planting, which should be done two or three days after a rain, when the ground is moderately moist.

The most approved manure for grape vines is a compost of lime and salt. Take one bushel of salt, dissolve it into a barrel of water—then take one barrel or cask of strong, fresh lime and slack it with the salt water—work it well into a paste, let it lie ten days under shelter—then take rich earth from the woods—corners of fences or yards, or peat, and mix it with the slacked lime, adding water occasionally if needed, continue to spade and mix it, till the mass is equal to three cords—put it under shelter for six weeks, when it will be fit for use.

When cuttings or vines are planted, a spade full of this manure may be added round each stake, and if the ground is clayey, spread broad cast 25 or 30 cart loads of fine sand taken from the nearest creek, then plow the ground the last of April, the wide way up and down hill, and plow it the narrow way across the hill, about the middle of June; after that, hoe the weeds and grass in July and stir the ground occasionally around the vines carefully, to keep them clean, and avoid disturbing them, this is all sufficient for the first summer's work.

In very dry springs and summers, grape cuttings and young transplanted vines require frequent watering—a well or spring, or rivulet, in the vicinity of the vineyard, will be found very convenient.

TO BE CONTINUED.

[*Sandersville Georgian.*]

A MAN STUNG TO DEATH BY BEES.—We learn through a letter, that on Tuesday evening, while a farmer named Hays, residing near Knoxville, in Frederick county, Md., was about to hive a swarm of bees, a great portion of them swarmed upon his head, and stung him in such a terrible manner that he died on the following day.—*Ex.*

## FRUIT IN POLK COUNTY, TEXAS.

EDITORS SOUTHERN CULTIVATOR—In this county very few of the fruits are cultivated, and yet I am perfectly satisfied from what I have seen that they might be, with very little expense, both abundant and profitable. Of the Grape we have several varieties growing wild. I can only describe them, as they have never been (as I know of) domesticated, named nor classified.

Then, first, we have a variety that seems to be partial to high pine woods, growing 12 or 15 feet in length, climbing upon little bushes or brush-wood, and so sometimes trailing upon the ground. The leaf resembles the Catawba. The fruit is borne in clusters, are large, transparent and delicious.

We have another variety, resembling, so far as the vine is concerned, the Scuppernong. It delights in rich valleys, running upon the tallest trees, sometimes leaping upon others near, tangling the tops for a considerable distance. The fruit is about the color and size of the Muscadine. The hull of this grape contains an acrid juice, imparting to the mouth, on chewing it, at first, a very astringent sensation, and finally, if persisted in, an unpleasant excoriation. But this difficulty is obviated by removing the hull, which yields readily to gentle pressure with the finger and thumb. The hull being removed, the fruit is very fine, and from a few small scale experiments, it is proven that they will make a good and well flavored wine.

As to the first variety, or pine woods transparent grape, if it was properly cultivated, would it not extend and bear fruit more abundantly? Would not the second variety, or acrid hulled Grape, yield to cultivation? Would not the genial influence of the vineyard remove its acrimony and induce it to yield kindly its luxurious burthen to the faithful husbandman? I have seen, of the last variety, several bushels to a single vine. I have selected a few of both varieties, as well as the Scuppernong, which is coming into notice in this county, and intend trying my luck upon a small scale, without any knowledge or example set me here, relying mainly, if not entirely, upon the information obtained from reading the *Southern Cultivator*.

In fact, I am young in Agriculture as well as Horticulture and Pomology. I have a small farm eligibly situated for an orchard, nursery or vineyard, and have an abundance of Peaches, planted without discrimination or knowledge, and a considerable number of Figs, Plums, &c. If I possessed the requisite knowledge, mine might, in a few years, be made the most inviting spot in the Eldorado of the West. But I will not despise the day of small things, and hope that by reading the *Cultivator* closely in due time I may have at least a passable farm and orchard.

Again. I see in the July number, under the caption of "Pears on the Haw Stock"—the perfect success of "A. C." We have several varieties of Haws here, one of which is very large, ( $\frac{3}{4}$  of an inch in diameter), it ripens in May, and even as early as the middle of April sometimes. The fruit abounds in acid juice, makes excellent tarts and preserves. It grows principally around highland ponds that dry up in summer. Would this variety do to graft the Pear upon? What particular varieties of the Pear does your judgment suggest as the most suitable for this region of country, being generally high, dry and moderately sandy, variously interspersed with hill and dale, with here and there a small body of black, stiff limestone prairie?

Can the Pear, in a suitable form for raising, be sent by mail? Living as I do in an inland country, with no navigation near me, only during the rainy season in winter, how would be my best chance to procure fruits, flowers, &c., from Fruitland Nursery? How long will grafts, buds, &c., live after cutting before being grafted?

One of my neighbors here who recently moved from Alabama brought with him several grafts of Apples and English Mulberries. The grafts were eight weeks from the cutting, to being put into stocks in this county. They were brought in a common jug tightly corked. The stocks used were the common Mulberry of this county. Two of his English Mulberries lived, but his Apples all died. Had he grafted his Apples upon the Wild Haw-Thorn, they might have lived if they had not been kept too long, for I have heard of several successful experiments with the Apple grafts and Haw Thorn stocks.

I sowed a small quantity of wheat this year, (the Summer's Wheat from South Carolina); owing to unavoidable circumstances I sowed too late, 11th March, but notwithstanding this and many other disadvantages, it made a very fair turn out. I will sow my next in December. One of my neighbors is just done harvesting, and from 8 acres of black, stiff prairie land he gathered two hundred bushels of wheat, being 25 bushels per acre. His entire crop will be sold, I am informed, at \$2 per bushel, to be sown for seed next season.

Oats, Rye and Barley, as well as Millet is raised here profitably. I have no doubt but that many good farmers have been deterred from moving to this section of the country heretofore from the fear that they could not raise the small grains to advantage. The above experiment of Mr. Copeland of 25 bushels per acre settles this difficulty, and we most cordially invite them to come on, and to bring with them young men of enterprise and energy, and if they have the cash they may bring it along too, in order that they may not be caught without a coat in time of a "norther," as your subscriber was. J. W.

Livingston, Texas, July, 1857.

[Our friend, "A. C." must answer the queries respecting the Haw, as we have no experience with that stock. Pear Grafts can safely be sent per mail in the winter, and fruit trees, vines, flowering shrubs, roses, &c., &c., also, when your waters are navigable. We shall be glad to receive roots of the vines, haws, &c., mentioned, and will give (per mail) our correspondent special directions for sending.—Eds.]

#### WINE.

The following views relate to a subject of much interest to our people, and proceed from a writer of great sagacity and practical sense:

To the Editors of the Enquirer:—"On the subject of the successful culture of the grape much yet remains to be learned in our country. Its importance is greatly enhanced, of late, by repeated failures in the vintages of Europe, where the opinion is becoming prevalent, among all classes, that the vitality of the vine itself is affected.

"It is surmised that two thousand years of propagation from cuttings is too long a period to expect the original vitality of the virgin vine to maintain its beautiful vigor. So impressed are some of the Courts of the continent with the importance of this question to the commerce of their Kingdoms that they are corresponding with vine-growers of Cincinnati, asking for specimens of American wines and cuttings of our native vines. They wish to test the American grape on European soils, not knowing but their own vineyards must be renewed from the virgin grapes of North Carolina, Georgia, Arkansas and Texas.

"As Cincinnati is the successful seat of vine growing in the United States, the public naturally look to her for instruction upon the subject. The many successful crops produced around this city attest that the seasons are of sufficient length to allow the grape to mature. But the many failures of late admonish the vine dressers that

there is some unascertained cause of blight that robs them of the fruits of their labors.

"This point needs investigation. The Catawba and Isabella grapes, not yet twenty years from the virgin vines of the mountains of North Carolina, do not escape the infection. Some other cause than that of exhausted vitality must be operating upon them. What is it? The geological basis of the Cincinnati soils is marlite and limestone—the soils, consequently, being highly impregnated with lime. Some of the most observant of the owners of vineyards at this city are of opinion that sandy lands will be found the most reliable for grape culture, and are anxious to have the question fully tested.

"The questions involved are more varied and important than the mere difference between limestone and sandstone lands. There is more to be learned than the causes of blight upon the grapes, producing mildew and the rot. The fine flavor of the best European wines, it is admitted, has not yet been attained for those of America. Until this is acquired our native wines cannot compete with the foreign unless, as is feared, the foreign wines shall utterly fail, and leave to us the monopoly of the markets of the world. This dreaded catastrophe to the foreign vineyards should be an additional stimulus to our vine-growers to ascertain the secret of improving the flavor of their wines.

"It is a fact well known to European travellers, who have investigated the subject, that two adjacent vineyards and even different portions of the same vineyard, produce wines widely different in their flavor and commercial value. Some other cause than climate and seas on must produce such a result. What is that cause? Why should the same variety of grape produce a wine so widely different when growing at one side of a field from that which it would produce if planted on the other side? Why should two branches cut from the same vine, or two cuttings from the same branch, when planted but a few rods apart, produce wines flavored so differently that the product of the one will be sought in all markets, while the other will sell in none, or at very reduced prices?

"The answer to these questions is obvious. As the difference is not produced by climate and season, it must be caused by the difference in the soils. Considerable inquiry has been made upon this point. But to the question. What class of rocks constitute the basis of the soil producing the choicest wines? No other answer generally has been obtained than that the vines are planted upon slates. None, however, can tell whether it is talcose slate, chlorite slate, argillaceous slate or mica slate. If the slate upon which the best wines are produced be either of the two first named, then the soil derived from it will include from thirty to more than forty per cent. of magnesia; if it be the argillaceous slate, the soils will have about twelve per cent. of soda; and if mica slate, they will have from five to eleven per cent. of potash.\*

"The importance of a thorough investigation of the geological basis of the vineyards of Europe by a competent geologist, who shall visit them for that purpose, will be understood when it is stated that the mountain regions of North Carolina, South Carolina, Georgia, Arkansas and Texas have extensive ranges of the slate above named.

\*The analysis of these slates are given in the books, in per cents of one hundred parts of each, thus: *Argillaceous slate*—Silica 56.11, alumina 17.21, soda 12.48, lime 2.16, magnesia 0.20, peroxyd of iron 6.96, water 4.58. *Chlorite slate*—Silica 31.54, alumina 5.44, magnesia 41.54, peroxyd of iron 10.18, water 9.32. *Talc*—(the *Talcose slate* not given)—Silica 62.80, alumina 0.60, magnesia 31.92, peroxyd of iron 1.10, water 1.92. *Mica* (common)—Silica 46.10, alumina 31.60, potash 8.39, peroxyd of iron 8.65, oxyd of magnesia 1.40, fluoric acid 1.12, water 1.00.

It is true that ten or twenty year's experimenting by American wine-growers would test the question, and show which of the slate-rock formations contain the magic elements necessary to the production of the choicest wines. But who will risk the trouble and expense of the experiments? And why should such delay be made when a single year might supply ample data to guide the vine-grower to a correct solution of the question?

"The experiments already made in grape culture in Tennessee, North Carolina and Georgia, within the last few years, have been attended with very encouraging success; but, so far as known, the fine flavored varieties of wine have not yet been produced. Let it once be understood that the territory above named includes all the varieties of soils known to the vineyards of Europe, and soon our mountains would swarm with vine-dressers, and the hills be made to flow down with wine."

#### PROLIFIC CUCUMBER VINE---CROPS, &c.

EDITORS SOUTHERN CULTIVATOR—We to-day were shown a Cucumber Vine, growing in the garden of A. J. Nichols, Esq., of this village, the product of which is beyond anything we ever saw or heard of. Mr. Nichols informed us he had taken seventy cucumbers from it, and that it now has two hundred and twenty-five still on it. We counted on the end of one branch, two feet in length, 18 cucumbers; on another, eighteen inches in length, 12. The vine is still vigorous and fresh, and shows not the least symptom of decay, and, we have little doubt, will produce 500 or more specimens of fruit. The vine is simply trained on a bush some 4 or 5 feet in height. Mr. Nichols will keep an account of the number of cucumbers the vine produces during the season, which will be communicated to you at the close of the season.

Wheat and Oat crops first-rate; Corn looks fine and promises to be unusually good; rains abundant. The only regret we now have is the entire loss of our fruit, with the exception of a few Apples.

J. VAN BUREN.

Clarksville, Ga., August, 1857.

#### WINE AT THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—Your correspondent "B." of Clinton, Georgia, is behind the age in your region. He says he "can make 300 gallons of wine from an acre." Explain this. Mr. Axt, of the same climate, and I presume in the same region, guarantees an average crop between 2000 and 2500 gallons to the acre. Here we deem 350 to 400 gallons a full average crop. The most I have ever known raised here, on an acre, was 1000 gallons and was sold for \$1,250. But I would advise "B." to lay the Scuppernon aside, from what its extensive grower, Mr. Weller, published. He put 3 pounds of sugar to the gallon of "must," or less sugar and some spirits, and then made what he called a Hock Wine, which is a hard dry wine. To make a fine wine of the character of Hock, the Catawba requires no sugar. One and a half pounds of crushed leaf sugar to the gallon put to the "must" of the Catawba, makes a sweet wine, to suit sweet ladies and gentlemen, not drinkers of Hock Wine. The hills of the northern part of your State and of South Carolina should be valuable for wine, even where of no value for any other crop.

Yours truly, N LONGWORTH.

Cincinnati, Ohio, Aug., 1857.

N B—The last pressing, about one-fifth, should be put in a separate cask, and about 2 pounds of sugar put to the gallon. It makes a valuable sweet wine, and the first fourth is greatly benefited by it. Or if a sweet wine is not wanted, put 1 pound of sugar to the gallon.

#### HEALTHFULNESS OF FRUIT.

THERE is no doubt, (says the *Spirit of the Press*,) but that the free use of fruit is highly conducive to health, and indeed almost indispensable to it. Much of the sickness in the Western country is occasioned by the want of it. It is the scarcity of good fruit that creates such a demand for physic at the West. The various fevers and bilious disorders prevalent in the summer season are more owing to the want of it than any other cause. And not until fruit is generally cultivated, and used as an article of diet, shall we be rid of these disorders, which are sapping the life-fountains of our farmers annually.

Nature, in this as in all other respects, has bountifully supplied us with varieties, which, if properly cared for, will enable us to enjoy a succession throughout the year. But fruit is not only a necessary of life—it is one of its great luxuries. What is more enticing to the palate than luscious fruit? And as an article of diet nothing equals it. It is easily raised, costs but little, promotes health, and is loved by every one. Most people content themselves by cultivating two or three varieties. This should not be so. Fruit is more needed throughout the summer season than almost any other part of the year. The farmer cannot take a step which will add more to his own joys, and those of his own family, than by having such a succession as will furnish him with fruit the entire year.

#### A CHEAP LUXURY.

THE last few years of extraordinary productiveness and high prices have enabled every farmer, of proper skill and industry, to make something more than enough to furnish him with the mere necessities of life—the eating, drinking, and clothing—and he should devote a portion of his time and earnings to furnish himself and family with some of its comforts and luxuries. Don't start, prudent and economical farmer! We are not going to advise you to get an enamelled carriage, with a coat of arms—or a five hundred dollar piano, or a hundred dollar shawl, for your wife. The luxury we suggest, though the gratification derived therefrom is almost incalculable, will cost comparatively nothing. It is, that you shall properly beautify and adorn your home. And to do this you do not stand in absolute need of anything but what nature has given you, in plenty, at your very doors—Trees, Grass, and Flowers.

Do not object that you have not a fine, large house. It matters not whether you live in a mansion, a cottage, or a cabin. Nature's embellishments harmonize with and beautify any object they may surround. Nature does not work in the artistic straight-jacket style of adaptation. Therefore, during the coming season, make your home beautiful by surrounding it with shade trees, a nice grass-plot, and a few flower-beds. To do this, you need no costly or tender exotics. If you have a taste for them, and money to spend for them, we will not object. But the flourishing and hardy plants of our own soil are quite as beautiful, if not as novel, and require much less care and trouble.

We have not room to give you particular directions as to what and how you should plant. Clear off as large a plot of ground for a yard as you can conveniently spare—you need not fear that your American utilitarianism will suffer you to devote too much to the purpose. It must be kept clear of chips, brush, straw, or other litter. Set out whatever kind of trees you like, so that they grow rapidly, have a large spreading top, a dense foliage, and

are free from vermin. The Catalpa, Locust, Elm, Maple, Sycamore, Mulberry, and many others will do, and look well. If the grass on your plat does not grow spontaneously, sow the seed of the blue grass. The selection and cultivation of flowers you may leave to your wife or daughters, only do not forget to help them prepare the beds—we warrant they will attend to the rest.

We repeat then, treat yourself to the luxury of a beautiful home, from henceforward. It will promote both health and cheerfulness. The Garden of Eden contained but little more than trees, grass, and flowers; and with but a little trouble and expense, every man may have a small paradise of his own.—*Valley Farmer.*

#### CATAWBA BRANDY IN ALABAMA.

A late number of the *Montgomery Journal* acknowledges the receipt of some rare specimens of Alabama wine and brandy by courtesy of Dr. Ulrich, made at his Catawba vineyard in the northern part of Tallapoosa county. They have been tried, says the *Journal*, by good judges, who pronounce them superb, and equal, if not superior, to the produce of any vineyards foreign or domestic.

Dr. Ulrich's Catawba is well known, but the brandy, only a pipe of which was distilled this season, has been tested only by few persons. It is the product of the pure grape, without any mixture with other substance. It is of a light sparkling amber color, and though but six months in cask, has the fine aroma and "gout" of the old varieties of choicest brands. In addition to the enjoyment of its fine exhilarating flavor, one drinking has the satisfaction of knowing that it is Alabama brandy, and a pure article, and not, as is now the brandy of commerce, a deleterious compound.

The Doctor now has his cellars finished, excavated from the solid rock, after the practice on the Rhine, and will be able to preserve and ripen his wines to any length of time. He will this season, from new and extensive vineyards which now commence bearing, be able to make a large quantity of wine, and supply that market with the best varieties.

It has only been about five years since the Doctor commenced his improvements and the cultivation of the Catawba. He was raised in the midst of the wine-growing regions of Germany, and has in his employ experienced vine dressers; and being a man of indomitable energy and enterprise, we look for great perfection in his products at no very distant day. The Doctor is no mere speculator in cuttings.—*Columbus Sun.*

#### WANT OF APPETITE.

EDITORS SOUTHERN CULTIVATOR—In compliance with the request of "E. A. M.," made in the August number of the *Cultivator*, I send you a prescription which I never knew fail to restore a horse to his usual appetite.

Give the horse one button of Nux Vomica, grated in hominy or bran every other day, until five buttons are taken; then omit them four or five days. During this time give daily some poplar bark, beat up as fine as possible, in bran. If this cannot be had hickory ashes make a good substitute. Repeat the Nux Vomica, as directed above, if the appetite has not returned. The horse should be curried and well rubbed three times every day in order to give a healthy action to the skin and hair. Also, he should be fed daily on corn, that was put in soak the night before. The water should be changed daily. I would advise, as a preventive to this disease, that every planter have twelve or more poplar poles placed in his lot in the spring season, in reach of the horses and mules and when the bark is gnawed off have them removed, and more put in the lot. Keep your horse troughs sup-

plied with hickory ashes during the summer months, and give very little salt during the plowing season. A strict adherence to these rules will insure every planter a healthy stock of horses and mules on his farm.

Yours, &c.,  
Jefferson Co., Ga., August. 1857. A SUBSCRIBER.

✍ "A READER" sends us the following as an "extract," but does not mention his source, which, of course, leaves us unable to give the proper credit.—Eds.

#### THE KIND OF EDUCATION BEST SUITED TO YOUNG FARMERS.

They greatly err who think it unnecessary to educate a son that is destined to be a farmer or mechanic. The man of education takes his stand and position in society above the illiterate and uninformed, be he never so honest and upright in his conduct. The young man who is sensible of the deficiencies of his education feels cramped and embarrassed in the presence of those who have had superior advantages. Whereas, if he is capable of appreciating and enjoying the conversation and society of men of intelligence and learning, he will naturally seek that class and still go on improving. I repeat it, that man errs who rises early, toils all day and is so tired at night that he has no pleasant word or look for his wife and children, who grudgingly doles out a pitiful sixpence for the daily wants of his family in order to add farm to farm, and field to field while his sons are growing up around him with minds untaught, talents unimproved, and unappreciated. Far better give them more learning and less land. Fit them to be useful and intelligent members of society and let them stand upon their own feet. They are then prepared for it, and to their latest day they will bless your memory. Every farmer should be taught the sciences of Natural Philosophy, Natural History, Mathematics and Chemistry. Not with a view of transforming them into Philosophers, but of communicating to them the important knowledge of the nature of those phenomena which daily present themselves to their observation. Such information would make them more successful farmers, as well as more intelligent men. The advantages which farmers would derive from studying those sciences will be best understood by pointing out their nature. First it is evident that most farming operations are much effected by external influences. The state of the weather, for instance, regulates every field operation, and local influences modify the climate very materially. Now, it should be desired by the farmer to become acquainted with the causes which give rise to those influences, and these can only be known by comprehending the laws of Nature which govern every natural phenomenon. The various classes of phenomena occur in the earth, air, water and heavens. The laws which regulate them, being unerring in their operation, admit of absolute demonstration, and the science which affords the demonstration is called Mathematics.

Again, every object, animate, or inanimate, that is patent to the senses possesses an individual identity, so that no two objects can be confounded together. The science which makes us acquainted with the marks for identifying individuals is termed Natural History. Farther, every object animate or inanimate, cognizable by the sense, is a compound body made up of certain elements. Chemistry is the science which makes us acquainted with the nature and combinations of those elements. We thus see how applicable those sciences are to the phenomena around us, and their utility to the farmer will be the more apparent, the more minutely each of them is investigated. Mathematics are either abstract or demonstrative. Abstract Mathematics "treat of propositions which are immutable, absolute truth," not liable to be affected by subsequent discoveries, "but remains the unchangeable pro-



perty of the mind in all its acquirements." Demonstrative Mathematics are also strict, but are interwoven with physical considerations, that is: subjects that exist independently of the minds or conceptions of them or of the human will; or, in other words still, considerations in accordance with Nature. Mathematics thus constitute the essential means of demonstrating the strictness of those laws which govern natural phenomena. Mathematics must, therefore, be studied before those laws can be understood.

Their study tends to expand the mind, to enlarge its capacity for general principles, and to improve its reasoning powers. Of the branches into which Natural Philosophy is divided, that which is most useful to farmers is Mechanics, which is defined to be "the sciences of the laws of matter and motion, so far as is necessary to the construction of machines, which acting under those laws, answer some purpose in the business of life." Without Mechanics as thus defined, farmers may learn to *work* any machine which answers their purpose; but it is only by that science they can possibly understand the principles upon which any machine is constructed, nor can any machine be possibly constructed in defiance of those principles.

Both machinists and farmers ought to be versed in mechanical science, or the one cannot make and the other guide any machine as it ought to be. The principles of mechanics are treated of separately under the name of Dynamics, which is the science of force and motion. Pneumatics is the branch of natural Philosophy which is next to mechanic in being the most useful to the farmer to know. Natural History comprehends several branches of study. Meteorology consists of the observation of the apparent phenomena of the atmosphere. Hydrography is the science of the watery part of the globe. It teaches the origin and nature of springs and marshes, the effects of lakes, marshes and rivers, on the vegetation in their vicinity.

Geology is knowledge of the substances which compose the crust of the earth. It explains the nature and origin of soils and subsoils. A knowledge of Geology might supply useful hints for draining land, planting trees, &c. Zoology, which treats of the habits of all animals, cannot fail to be a source of great interest to every farmer who rears stock. The science which bears directly on agriculture, and with which every farmer should make himself acquainted is Chemistry; that science which is cognizant of all the changes in the constitution of matter, whether effected by heat, moisture, or other means. A science so universally applicable cannot fail to arrest popular attention. Many farmers will assert it to be far beyond the reach of their means, and others beyond their station, to bestow on their sons so learned an education as that implied in the acquirement of the sciences just enumerated. No farmer who is above want should grudge his sons an education that will fit them to adorn the profession they intend to follow. It cannot be denied that a knowledge of Mathematics and Natural Philosophy greatly elevates the mind. Those farmers who have acquired those sciences must be sensible of their tendency to do this, and they will, therefore, wish *their* sons to enjoy the same. No right-judging man who has unfortunately in his youth been debarred from these opportunities should wish to cramp his sons down to the rule, that *I* never learned them and have made a living without them and so can you.

I repeat it, a good education is the best legacy a parent can leave a child. Were industrious farmers as eager to improve their sons mind's by superior education, as they are to amass fortunes for them, they would display more wisdom in their choice. The time occupied in the acquisition of these sciences is not lost when compared

with the advantages they may bestow. Part of three years will accomplish all amply, and in this way:—The first year to be devoted to Mathematics, the second to Natural Philosophy, and the third to Natural History and Chemistry and along with these principal subjects, sometime in both years should be devoted to Geography, English Grammar and composition, book-keeping and a knowledge of cash transactions.

READER.

#### MUTTON vs. PORK.

PHYSICIANS recommend mutton as the most wholesome meat, the easiest digested and best suited to invalids; while pork, as every body knows, is the most unwholesome flesh eaten. In England mutton is a favorite dish, and we apprehend it is to this, rather than to roast beef, that the Englishman owes his robust health and rosy complexion. Our people eat too much pork and too little mutton. And yet, as a contemporary remarks, "mutton can be produced, pound for pound, at less than half the price of pork; yields more nourishment when eaten, and keeping sheep does not exhaust a farm to the extent feeding hogs does. Sheep can be kept through the winter on hay and turnips, or mangle wurtzel, or sugar beet, while hogs will not do without, at least, some corn. We would like to see in the papers fewer accounts of big pigs and more about fat sheep.

We clip the above from the *Portland Transcript*. We like the plea for more mutton, and better mutton, that more may be eaten; but don't attempt to build up one interest at the expense of another. Give us the mutton and the pork also, and the more of both, if good, the better. We must have pork, hams, lard and lard oil. The pork may be made where the mutton cannot so well, and *vice versa*. The pigs, if they are worth raising, will live on the sugar beet, the parsnip and carrot, and although they eat not the hay, they will the grass; and the *Transcript* will find very little first class mutton where corn, or some equivalent equally substantial, has not been fed. We say, let us hear more about "the big pigs," the best pigs, and and more about the best sheep and "the fat sheep."—*Ex.*

#### SOUTHERN ABSENTEEISM.

In the course of an excellent article on the subject, after citing what the curse of Absenteeism has done for many other sections, the *New Orleans Delta* holds the following language:

"The South, like the countries we have cited, has suffered immensely from what we called, the other day, the summer hegira. Is it a fair outlay of the gains which winter thrift and industry reaps from Southern planters and permanent citizens, to swell the repletion of the pockets of Northern men? Is it high-toned, chivalrous and just, thus to abandon yearly this land of beauty and of hospitality, to build up and strengthen the hands of the Goliath of Abolitionism? The late Secretary of State, when informed of the decapitation of some of the old office holders under the new *regime*, declared his aversion to pillaging his own camp. But what shall we say of those Southerners who deliberately pillage their own homes every summer?

"The idea of going to the North for pleasure? is it not, dear reader, the *ne plu-ultra* of ridiculousness and folly? Pleasure among those who practice robbery, as vile and heartless as the brigands who were wont to startle the guests of "mine host of Terrecina?" Dare you carry a body servant among the people whom you so liberally patronize? O! unthinking and prodigal absentee! can

you sit down at the table of the St. Nicholas, the Metropolitan, the Astor House, or the New York Hotel, without being stared at as a Southern 'slaveocrat,' or annoyed by the fanatical vermin that infest every railway car, steamer and public resort? Of if happily these annoyances are not experienced—freedom from them being chiefly the result of silence and exclusiveness—does not the conviction force itself upon the mind of every sensitive visitor that they are in Philistia, and must, therefore, conform to a line of policy hostile to the manly nature of Southern men?"

**THE NEXT TOBACCO CROP.**—We take the following extract from the Clarksville (Tennessee) *Weekly Chronicle*, of the 12th ult. After some remarks about corn, wheat, etc., the *Chronicle* says:

"Tobacco is the crop about here however, and it absorbs nearly every other interest in our agriculture. A month ago the chances were pretty well balanced between a crop and no crop of this delectable weed. The early plants were mostly destroyed in the beds by frost, and it became evident that to re-sow would put the planting at so late a date as to render the curing of a fair average crop impossible. First it was said that there were no plants left, and no more seed; but it was soon found that there was a large quantity of plants left, and plenty of seed. Then 'the sun was drying up all the young plants,' but right on the heels of this lamentation came copious but gentle rains, and the plants thrived elegantly. Then 'there was no time to set out tobacco'—'none could be planted before July, and that was too late, everybody knew!' Well, notwithstanding all these melancholy forebodings, there is an abundance of fine plants in the country, the seasons having been highly propitious, and though it is now but the 12th of June, a good crop has already been set out, and in the next week the largest crop ever planted in this section will have been set out, of good, thrifty plants, and with ordinarily favorable seasons, to the time of maturity, there will be in this and the surrounding country, a larger crop of tobacco than was ever made before. Such is our honest conviction, based on intelligence from all directions of the tobacco growing sections."

#### SHOEING HORSES.

**CLINCHING HORSE SHOE NAILS.**—As I once passed through this town, one of my horses' shoes became loose, and I went to the shop of a smith named Lovelace, to get it fastened. The shoe was nearly new, and had become loose in consequence of the nails having drawn out of the hoof, although they had been clinched in the manner universally practised. The smith remarked that all the other shoes were loose, and would soon drop off, when I requested him to take them off and replace them; and then did I perceive the different mode which he adopted for fixing them, which I will here detail. As fast as he drove the nails he merely bent the points down to the hoof, without, as is customary, twisting them with the pincers; these he then *drove home*, clinching them with a heavy pair of pincers, which were not made very sharp, and after this had been very carefully done, he twisted off the nails as close as possible to the hoof, the pincers being dull, the nail would hold so as to get a perfect twist round before it separated. These twists were then beaten close to the hoof and filed smooth, but not too deep or with the view to rasp off the twist of the nails.

"Oh! ho!" said I, "I have learned a lesson in horse shoeing."

"Yes," said he, "and a valuable one; if I were ever to loose a single shoe in a long day's hunt, I should have to shut up my shop; my business is to shoe the horses belonging to the hunt, and the loss of a shoe would be the

probable ruin of a horse, worth perhaps, a thousand pounds; but I never am fearful of such an accident."

"Simply because you drive home and clinch the nails before you twist them off," said I.

"Yes," replied he, "by which I secure a *rivet* as well as a *clinch*."

The thing was as clear as the light of day, and I have several times endeavored to make our shoeing smiths understand it, but they cannot see the advantage it would be to themselves, and guess therefore, *it would never do in these parts*; but if my brother farmers cannot see how it works with half an eye, and have not the resolution to get it put in practice, they ought to see the shoes drop from the feet of their horses daily, as I once was accustomed to do. Now, let any one take up an old horse shoe at any one of the smiths' shops on the road, and examine the clinch of the nails which have been drawn out of the hoof, and he will soon perceive how the thing operates. In short, if the nails are driven home before twisting off, and the *rivet* formed by the *twist* be not afterwards removed by the rasp, I should be glad to be told how the shoe is to come off at all, unless by first cutting out the twist.—*Formers' Cabinet, England.*

#### FEMALE HEALTH AND BEAUTY.

The Baltimore *Weekly Sun*, in an article on "Health and Beauty in Women," speaks as follows:

"Why is it that the beauty of our females fades so soon? Or, to get at once to the real issue, for beauty is only permanent where there is health, why is it that our women, as compared with the women of other temperate climates are so delicate and fragile?"

"The answer may be made in a few words—it is because they neglect air and exercise. Weakness, lassitude and fading complexion as inevitably follow indolence and confinement as the wilting of a plant results from its deprivation of light. It is a law of our existence that we must take daily exercise if we would continue healthy. It is a fact in philosophy that vitality cannot exist without air and light. All the refinements of civilization, all the resources of science, have failed to supply a substitute for fresh air and exercise. The poor and the rich stand on the same platform in reference to this necessity of our nature. The lady in silks and satins can buy no cosmetic which is so efficacious as the sunshine and the breeze which is poured out at the very door-step of her more humble sister.

"On this point we could, if necessary, accumulate volumes of testimony. The best physicians have long been agreed that the principal causes of consumption among American women who are comparatively well off, are their indolent habits and their aversion to walking in the open air. It is also well known to be a fact that the Indians of Massachusetts had been exempt from disease of the lungs, although their Anglo-Saxon successors died at the rate of forty-seven to the hundred; and he attributed this exemption on the part of their aborigines, from that terrible disorder, to their living almost entirely in the open air. The equally celebrated Dr. Morton subsequently confirmed this opinion. Dr. Physick, of Philadelphia, one of the most distinguished men this country ever produced, actually cured himself of an incipient pulmonary complaint by activity and exposure to the open air. The experience of the New Zealanders confirms this of our American Indians, for since the introduction of European habits into New Zealand, the natives—among whom consumption was formerly unknown—have died of it by thousands.

"What is true of consumption is true of diseases in general. The best preventive against diseases—the medicine which is worth a thousand panaceas—is exercise and fresh air, or rather exercise in fresh air."

## Advertisements.

## BRAHMIN CATTLE.

I WISH to place a portion of my Herd of Grade Brahmin Cattle with a responsible Stock Breeder, of Texas, or Florida, on such terms as may be mutually satisfactory.

They are of large size, rapid growth, and for oxen in a hot climate they are superior to any other breed in the world.

Sept 57—2t

RICHARD PETERS, Atlanta, Ga.

## TO SEEDSMAN, PLANTERS, &amp;c.

**THORBURN'S PRELIMINARY WHOLESALE PRICED LIST** of Vegetable and Agricultural SEEDS, DUTCH BULBOUS ROOTS, DOUBLE DAHLIAS, &c., for the fall of 1857, is just published, and will be mailed to dealers and others requiring seeds in quantities, by enclosing a stamp for return postage.

This year's seeds, so far as harvested, are of prime quality, generally abundant, and prices correspondingly moderate.

J. M. THORBURN &amp; CO.,

Sept 57—3t

Seedsmen, &amp;c., 15 John street, New York.

## WASHBURN'S PATENT AGRICULTURAL Implements

ARE unquestionably the greatest advance in the adaptation of labor-saving Machinery to the production of Cotton that has been made since the invention of the Saw Gin.

The COTTON and CORN PLANTER performs the entire operation of planting with one hand and one mule ten acres a day. It reduces the ridge, no matter how rough or cloddy, to a smooth oval surface; opens the drill to any desirable depth, equally in soft or hard ground; deposits the seed in any desirable quantity, all the seed taking position in line at the same depth and, therefore, coming up at the same time; closes the drill and slightly compresses the surface, leaving it free from clods, not liable to be uncovered or covered deeper by hard rains, and securing a perfect stand in the driest weather.

The combined SCRAPER and HILLER is a double-acting machine, doing the work on both sides of a row at once. When used as a Scraper, operated by one hand and two mules, it bars off and scrapes both sides of a row at the rate of ten acres a day in the most perfect manner, so as not to cover up cotton when it is just out of the ground.

It enables one hand and two mules to perform what now requires four hands, four implements and four mules. The same machine, when used as a Hiller, moulds both sides of a row at once, graduating to any desirable depth, the dirt placed around the young plants, so that all are dirt d (not covered up) and the surface of the row 1 ft free from clods.

The operation of moulding young corn and cotton with this machine is performed with ease to the hand and team at the rate of ten acres a day. Both machines are made of iron and well seasoned white oak timber in the most durable manner, and will last indefinitely. All necessary repairs can be done on the plantation by an ordinary blacksmith and carpenter.

The whole crop of corn and cotton can be planted, scraped, moulded by the use of these machines with two-thirds the force now required, and the work better done than by any other method.

Our mode of business is to receive the Draft of the planter on his Merchant (or any one whom he may authorize to pay his Draft,) payable on the first of January, February or March, and we will deliver the machines in time for use. Should the money be drawn and the machines not delivered in time for use we will refund it immediately on notice. Freight and forwarding charge must be paid by the co-signee, or they cannot be delivered.

Those who desire to use them next season should order immediately, as none will be made except to order, and the supply of material collected for the season's manufacture will depend on the number of orders.

Several orders failed to be filled last season for want of material's owing to the lateness of their receipt.

The price of the Planter is \$50, the Combined Scraper and Hiller, \$50 each on delivery.

For Machines and County Rights, address

A. W. WASHBURN &amp; CO.,

Yazoo City, Miss.

## Testimonials.

On Friday last we visited Mr. James P. Sessions farm near Jackson, for the purpose of examining the agricultural implements, patented by Dr. A. W. Washburn, as well as to see them operated in the field by Col James J. B. White. We are highly gratified and pleased with each. The planter is unexceptionable, and performs its work with great speed and perfection.

We confidently recommend them to the patronage of all planters, believing that they are, as heretofore represented by many planters and overseers, truly labor-saving machines.

George S. Yerger,  
Madison McAfee,  
J. A. Horn,  
C. A. Moore,  
J. R. Harris,  
T. Graves,

J. M. Moore,  
G. W. Russell,  
Oliver Barrett,  
Howell Hobbs,  
R. N. Eabank,  
James P. Sessions.

"GOOD INTENT PLANTING" DEAR CREEK,  
Issaquena Co., Miss: Sept. 30, 1856.

To Col. James J. B. White:—Dear Sir—Having minutely examined, and further witnessed the operation of Dr. A. W. Wash-

burn's newly invented Cotton Planter, and Scraper, I take great pleasure in pronouncing them perfect and complete machines, for the work they are intended to perform; having extensively patronized them myself, I confidently recommend them to the use of all planters, believing they will insure and maintain a certain stand of cotton.

Yours very respectfully,  
CHARLES J. FORE.

The undersigned have seen Dr. Washburn's Agricultural Implements in operation, and are satisfied that for speed and perfection of work, they surpass anything we have ever seen.

## PLANTERS.

Joseph Andrews,  
James J. B. White,  
George W. Woodberry,  
E. B. Runcell,  
A. G. Bennett,

## OVERSEERS.

D. H. Howson,  
J. B. Garrott,  
Wm. L. Clark,  
Jno. T. Juddins,  
H. G. Geeter.

It has been repeatedly said of the Planter that there is neither room nor need for further improvement. But we shall improve on those made hereafter in several mechanical points, which will render more attainable and still more perfect the complete result.

Finding the Chopper unimportant, we have discontinued it, and combined the Scraper and Hiller into one machine. This will cheapen the price of the set, save transportation, and make a more convenient as well as better Scraper. With the combined Scraper and Hiller, cotton may be scraped close to the drill, as soon as it is out of the ground, without being covered up, thus facilitating the rapid forwarding of a late planting, or preventing the establishment of an early stand of grass on land that has been in corn.

These improvements render Washburn's Planter, and Combined Scraper and Hiller the most valuable labor-saving implements ever offered to the cotton planter. The work of each, whether planting, scraping or hilling, is done by one hand at the rate of ten acres a day in an efficient and uniform manner, surpassing in every element of perfection similar work done by any other means. They unquestionably pay for themselves in one year, while they last many years. The following is some of the testimony which the trial of these machines has elicited. It will be observed that some of the names are the same which were given last year. The reason of this is that their first opinions were formed on witnessing a mere experiment in our own fields, or where they might suppose the most favorable circumstances had been secured for exhibiting to advantage.

Now they testify positively of their own extensive use

MONTEREY, YAZOO COUNTY, April 1, 1857.

I am planting with three of Washburn's Planters and am satisfied they do the best planting I ever saw. J. M. DEMENT,  
Overseer for A. M. Payne.

April 1st, 1857.

I have tried Washburn's Planter and am satisfied with the work and recommend it to the planting community.

D. MCCURRY,

Overseer for Col. J. D. Stewart.

April 1st 1857.

I have tried Washburn's Cotton Planter, and find it all that it is represented to be.

N. B. STREET,

Overseer for Joseph Andrews.

IVANHOE PLANTATION, April 13th, 1857.

Having used one of Dr. A. W. Washburn's patent Planters, I feel no hesitation in saying, that he sawe works beautifully, so much so that, in my opinion, he has left no room for further improvement in the way of an implement with which to plant cotton.

S. GROVES CHAMBERS,

Overseer for Geo. S. Yerger.

YAZOO COUNTY, May 3, 1857.

Dr. A. W. Washburn—Dear Sir:—I have secured a perfect stand of cotton under most unfavorable circumstances, by using your Planter

JAMES P. O'RILEY.

YAZOO COUNTY, April 2, 1857.

Dr. A. W. Washburn—Dear Sir:—I have witnessed a thorough trial of your Cotton Planter. It performs admirably, and cannot fail to give universal satisfaction. Very respectfully,

W. PARKER SCOTT, Episcopal Minister.

WYOMING PLANTATION, May 28, 1857.

Dr. A. W. Washburn—Dear Sir:—Having thoroughly tested your Planters, both on the hillsides and level lands, I feel no hesitation in pronouncing them the best implements of the kind I have ever seen, and would recommend them to every planter who desires to secure a perfect stand. Respectfully,

J. W. THOMSON.

Dr. Washburn—Dear Sir:—I have in operation on my plantation (which is hill-land with circled rows about 3½ to 4 feet wide) one of your Cotton Planters, and am fully satisfied with its performance. It does the work, in my opinion, perfectly.

C BOWMAN.

Extract of a letter from Mr. W. Monroe Quinn.

QUIN'S STATION, N. O., & J. R. R.,  
Pike State, N. S., April 27, 1857.

Dr. Washburn & Co.:—I have planted my whole crop with your Cotton Planter, and upon the whole, I now think that it is as high perfect as can be made, and to a practical planter, is bound to give perfect satisfaction and work a reformation among Southern agriculturists, as well as (I hope) to pay you well for your invention. With my best wishes for the further improvement and wide extension of what I consider now the best Agricultural Implements of the age, allow me to remain,

Yours, W. M. QUIN.

YAZOO COUNTY June, 1857.

I have used Dr. Washburn's Planter for planting, and his Hiller

for moulding cotton, in managing Dr. Woodberry's crop, and think too much cannot be said in their favor.

THOMAS VANCLEAVE.

INCHUA, near Yazoo City, June 10, 1857.

*A. W. Washburn & Co.*—I have planted considerably over one hundred acres of cotton with Washburn's Patent Planter; and have obtained a perfectly healthy stand under most unfavorable circumstances. I have also used the Hiller, which (after I had braced the plows) speedily relieved me from the danger of being injured by grass, by enabling me to mould from eight to ten acres a day with one hand, doing the work in the most perfect manner. It works easily to the hand and team, effectively and with the most beautiful uniformity. In short, the Planter and Hiller are unexceptionable and invaluable. I would not be without them in future were the price doubled.

G. W. WOODBERRY.

YAZOO COUNTY, Miss., June 20, 1857.

*A. W. Washburn & Co.*—Gentlemen:—I have planted the entire crop under my management, corn, cotton, and some Osage Orange for hedging, with Washburn's Patent Cotton Planters. I have scraped and hilled it with his Scraper and Hiller, and have experienced no difficulty in obtaining the most perfect uniform and healthy stands I ever saw. I have had no lice or any other disease common to young cotton.

I have no hesitation in pronouncing Washburn's Planters, and Combined Scraper and Hiller the most valuable labor-saving implements for the field ever offered to the planter.

They work easily to the hand and team, and do the work thoroughly, and with a degree of uniformity and exactness, unequalled by any other method, and unimaginable by one who has not seen them work. They are very durable and easily kept in repair, and, in my opinion, will pay for themselves in one year.

M. S. INGRAM.

ST. FRANCISVILLE, La., April 28, 1857.

*Dr. A. W. Washburn*—Dear Sir:—I have used the Cotton Planter, purchased of you, and my neighbors as well as myself are very much pleased with its performance. I shall want two more for next season, and think there will be a demand for them in this Parish as soon as they become known.

H. H. CONNELL.

YAZOO COUNTY, June 24, 1857.

*A. W. Washburn & Co.*—Gentlemen:—I have used Dr. Washburn's Planter, and Scraper and Hiller this season, with unparalleled success. They are capable of securing a more perfect stand, while they do the work better than by any other means I have ever known. The Planter being already sufficiently perfect, the combination of the Scraper and Hiller into one machine, by reducing the cost and facilities, and improving effect, has left no room for further improvement.

I shall use them more extensively next season, and shall want some more machines.

Yours truly,

Sept 17—tf

JAS. P. O'REILLY.

## HYACINTHS, TULIPS, DOUBLE

Dahlias, &c.

THE Subscribers offer this season a more extensive assortment than usual of Dutch BULBOUS ROOTS, imported from the best flower nurseries of Europe, in the finest condition, and all first class. Bulbs embracing every desirable variety of Double and Single Hyacinths, adapted for house and out-door flowering; Early and Late, Double and Single Tulips of every shade and hue; Polyanthus Narcissus; Roman Narcissus for early winter flowering; Single Narcissus; Double and Single Jonquills; Crocus of all sorts including some very fine new named seedling varieties; Crown Imperials; Fritillarias; Gladioli; Iris; Lilies; Arums; Colchicums, with numerous other sorts of approved tested value.

Catalogues of the above, with descriptions and directions for planting and manuring, will be mailed to applicants enclosing a stamp.

HYACINTH GLASSES, FANCY CROCUS POTS, &c.

J. M. THORBURN & CO.

15 John street, New York.

Sept 17—3t

## GRAPES FOR THE SOUTH!!!

THE subscriber offers for sale several thousand rooted Vines and Cuttings of the following varieties of Native Southern GRAPES, all of which have been proved to be fully adapted to the climate, and excellent both for Wine and the Table:

Isabella, Black July, Burundj, (so called),  
Warren, Catawba, Supperlong.

Gentlemen wishing to plant largely for Wine making, will be supplied with rooted vines or cuttings on very liberal terms. A plain, practical Treatise on the Culture of the Vine in the open air, as successfully practiced in South Carolina and Georgia, will be freely mailed to all purchasers of vines; or to other applicants who enclose a postage stamp.

Sept 17—tf

D. REDMOND,

Augusta, Ga.

## GLOAMING NURSERY—CLARKSVILLE,

Habersham County, Ga.

THE Subscriber again offers to the public a fine and thrifty growth of Southern raised FRUIT TREES, consisting of Apples, Peaches, Nectarines and ORNAMENTAL SHRUBBERY. The collection and variety of Southern Seedlings is the largest and most select in the South, many of which are new and very superior and not heretofore offered for sale by any Nurseryman.

Catalogues containing prices, information on planting and routes for transportation, &c., sent gratis, on application, by mail or otherwise.

[Sept 17—3t]

J. VAN BUREN.

## FRUITS AND FLOWERS FOR THE SOUTH!!!

"Fruitland Nursery," Augusta, Ga.

I SHALL offer, the coming fall, for orchard and garden planting, an unrivalled collection of Apples, Apricots, Almonds, Peaches, Cherries, plums, Nectarines, PEARS!

Grapes, Pomegranates, Strawberries, Figs, Raspberries, Blackberries, Hedge Plants, Roses, Evergreens, &c., &c.

In short, everything new, desirable and adapted to our climate.

Descriptive and Priced Catalogues mailed free of postage to all applicants. A Supplemental Catalogue (containing many new and rare Fruits found in no other collection) will be issued early in September and freely mailed as above. November, December and January are the best months for transplanting. All orders and letters containing remittances acknowledged by return mail.

Address:

D. REDMOND.

Sept 17—tf

Augusta, Ga.

## SITUATION WANTED.

A YOUNG gardener, unmarried, wishes to obtain a situation in the South, either in a nursery, or to take charge of a private Garden, Greenhouse, etc. He has been regularly brought up to that business, and familiar with the climate of the South, having been employed there for the last 9 years. He has good recommendations.

Persons wishing to employ him will please address

ROBERT NELSON, Augusta, Ga., or

W. K. NELSON, care of Wm. Reid,

Elizabethtown, N. J.

Sept 17—2t

## PLANTATION AND COUNTRY RESIDENCE For Sale.

THE Subscriber offers for sale his PLANTATION AND COUNTRY RESIDENCE. The Tract contains 1260 acres, most of which is fine productive land. The soil is what is called sandy, with a clay foundation—consists of red and grey lands, and is well adapted to the culture of Cotton. There is upon the tract a body of Pine Land, finely timbered, and an abundance of stock water is afforded from never-failing streams. The place is well adapted to the business of stock raising. There are on the premises a large framed Dwelling House, with ten rooms; all necessary out-houses; a new Barn and Stables; new Negr. Cabins, with brick chimneys, sufficient in number to accommodate from thirty to forty negroes, and a good Gin House and Screw. There are fine Peach and Apple Orchards on the premises, with other varieties of fruit. The location is in the county of Autauga, 14 miles from the city of Montgomery, 2 miles from the flourishing manufacturing town of Prattville, and 4 miles from the Alabama River. The situation is elevated and beautiful, and cannot be excelled for good health; and the water is unsurpassed. There are fine mills in the vicinity, and the neighborhood affords the best of society.

The subscriber wishes to sell because his profession compels him to reside off the premises, and they are too valuable and desirable to be converted into a mere negro quarter.

A good bargain will be given, and terms made easy. Address:

THOMAS J. JUDGE,

Montgomery, Ala.

P. S.—A valuable stock of CATTLE, &c., would be disposed of with the premises, if desired.

Sept 17—4t

## PATENT RIGHTS FOR THE SOUTH.

THE undersigned is desirous of introducing in this section of country, every Patented and other useful invention, either of a Manufacturing, Chemical or Agricultural nature, and believing it may be beneficial to Southern interests, solicits the AGENCY for the sale of Patent Rights as above stated, of every description. Either State, County, City or Individual Rights, for the States of Georgia, Carolina, Alabama and Tennessee. The location being central, will afford facilities of extending the sale of every useful invention, throughout the Southern States. Address

WM. HAINES, Augusta, Ga.

P. S.—Satisfactory reference given if desired.

Sept 17—1t

## DEVON AND ALDERNEY CATTLE FOR Sale.

I OFFER for sale the following thorough-bred DEVON CATTLE, viz:

DEVONS.

3 Heifers, in calf to my bull "Springfield." (See Davy's Devon Herd Book, 2nd vol.)

1 Heifer in calf to same bull.

2 Heifer Calves and 3 Bull Calves, from same bull.

All these animals are out of Patterson cows, by Patterson bulls.

Also, Bull "Springfield." (See Davy's Devon Herd Book.)

Springfield gained the first prize at the Atlanta Fair, 1855, as a 2 year old.

ALDERNEY.

1 Alderney Bull, 1 year old, out of an imported cow, and sired on the Isle of Jersey, by a 1st prize bull.

I can furnish undoubted pedigrees with all the above animals, and will deliver them at the Railroad Depot, at Athens, Ga., free of cost to the purchaser. Address

GEO. H. WARING,

Sept 17—tf

Clarksville, Ga.

## SOUTHERN CULTIVATOR FOR 1856.

BOUND volumes of the SOUTHERN CULTIVATOR for 1856, may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address,

WM. S. JONES, Augusta, Ga.

## MISSISSIPPI FRUIT TREES.

THE undersigned offers for sale, at Columbus, Mississippi, a good assortment of APPLES, including the best early medium and late winter varieties, from all parts of the Union. PEARS, a choice collection, consisting of over eighty different varieties, a heavy assortment of Dwarfs of bearing age and size. PEACHES, over two thousand trees ripening in succession, from June until October. PLUMS, a good assortment, including seven varieties; also, PRUNES, for drying. APRICOTS and NECTARINES, about one hundred and fifty varieties. GRAPES, a few very choice vines of good size, consisting of Isabella, Malaga, Catawba and Mustang, a Texas native.

☞ All orders for the above, amounting to over fifty dollars, from adjoining counties, will be delivered in Starkville, Macon, Crawfordville, and Aberdeen, free of charge for transportation. August, 1857—3\* JAMES JONES, JR.

## SOUTHERN PLANTERS!

Encourage your own Manufactures, which are now languishing for want of your support.

I TAKE this method of informing Planters that I am still manufacturing at Belleville Factory, Augusta Georgia, a first rate article of NEGRO CLOTH, made of strong, double, well twisted cotton warp, and pure wool filling; which I warrant as a faithful article, and to wear longer than any Northern goods.

Being one of the pioneers in manufacturing in Georgia, I have had to struggle against a fierce competition from the Massachusetts manufacturers—for their skill could put a good face on an inferior article, which they could sell nominally cheaper than I could a faithful article. Hence, merchants as well as planters, refused to encourage Southern enterprise, because Northern goods were offered at a few cents per yard less, overlooking the vast difference in the quality of the material used. Is not now the time for planters to encourage Southern manufactures, and make us independent of the North, especially when goods are offered at a reasonable price, and of a quality that will give satisfaction.

All orders will be filled in their turn, and forwarded as directed; on receipt of the goods, an order on your factor, or your note payable 1st of January, will be satisfactory. At the prices mentioned below, the goods will be delivered in Augusta and forwarded as directed.

Extra Heavy Twills.....42 cents, 30 inches wide.  
Heavy Plain.....32 " 30 "

WOOL will be taken in exchange for goods, at 20 cents per lb. for unwashed, free of burrs; or 30 cents for clean washed—the wool to be delivered in Augusta. If there are burrs in it, the weight of burrs deducted. I will pay freight on the wool and deduct it when settling for it. It can be sent to S. H. Oliver, my agent at Augusta, and the goods will be forwarded promptly on receipt of the wool. GEORGE SCHLEY.

Aug57—4t

## GRAPE CULTURE—VINEYARDS—WINE!

THE subscriber will receive and fill orders for *Cuttings* and *Rooted Vines* of the *Catawba Grape*, from one dozen to thousands. He will furnish either Southern *Cuttings* and *Vines* from the *Vineyards* of Mr. CHARLES AXT, and his own Nursery, or Western *Cuttings* and *Vines* from Cincinnati, at a *reduced rate*. The *Isabella*, *Warren*, *Scuppernon*, and other hardy Grapes, also supplied; in addition to a choice collection of the finest Foreign varieties, such as *Black Hamburg*, *Muscat of Alexandria*, *Cannon Hall Muscat*, *Black Morisco*, *Syrhan*, &c., &c. Early orders solicited.

☞ Full and complete Descriptive Catalogues of Fruit Trees, Vines, Roses, Shrubs, Evergreens, &c., with hints on culture, sent free of postage to all applicants. Address:

D. REDMOND, Augusta, Ga.

"Fruitland Nursery," August, 1857—if

"Think of Living." New Volumes.

## OUR ILLUSTRATED FAMILY JOURNALS.

LIFE ILLUSTRATED; a First Class Pictorial Family Paper, devoted to News, Literature, Science, the Arts; to Entertainment, Improvement, and Progress. A large, handsome quarto. Published weekly at \$2 a year. \$1 for half a year.

New Volumes of the following Journals begin with the July numbers:

THE WATER-CURE JOURNAL; devoted to Hydropathy, its Philosophy and Practice; Physiology, Anatomy, and the Laws of Life and Health. Illustrated, Monthly, \$1 a year.

THE PHEENOLOGICAL JOURNAL gives Practical Instructions to Learners, with Directions for the Cultivation and Improvement of Mankind. Illustrated. \$1 a year.

For Three Dollars, all three Journals will be sent a year. Address: FOWLER & WELLS, 308 Broadway, New York.

Aug57—2t

## FRESH TURNIP SEED.

THE subscribers have obtained from unobscured sources fresh seeds of the following varieties of the TURNIP:

Skirving's Rata Baga,

Large English Norfolk,

Large White Globe,

Large Flat Dutch,

Large Red Top.

☞ Put up neatly in 1 lb. and ½ lb. papers; and the trade supplied on reasonable terms. PLUMB & LEITNEK.

Aug57—3t

Augusta, Ga.

## NEW WORK!—NOW IN PRESS!!

## SORGHO AND IMPHEE.

## THE CHINESE AND AFRICAN SUGAR CANES.

A COMPLETE Treatise upon their Origin, Varieties, Culture and Uses, their Value as a Forage crop, and full Directions for Making Sugar, Molasses, Alcohol, Sparkling and Still Wines, Beer, Cider, Vinegar, Paper, Starch and Dye-Stuffs.

FULLY ILLUSTRATED with DRAWINGS OF APPROVED MACHINERY;

With an Appendix by LEONARD WRAY, of Caffraria; and a Description of his Patented process for Crystallising the Juice of the Imphee; with the latest American Experiments, including those of 1857 in the South. By HENRY S. OLCOTT. To which are added Translations of valuable French Pamphlets received from the Hon. Jno. Y. Mason, American Minister to Paris.

Price One Dollar,

Sent by mail post-paid. Orders taken immediately. Those first received will be first filled.

C. M. SEXTON & CO.,  
Agricultural Book Publishers,  
140 Fulton st., New York.

Aug57—2t

## VALUABLE FARM FOR SALE IN CHEROKEE Georgia.

THE subscriber wishing to get to retired situations offers his FARM for sale, situated on the Western and Atlantic R. R. at Catoosa Passenger Depot at equal distance from Catoosa Springs and the flourishing town of Ringgold.

The Farm contains 450 acres of good land; two hundred in a high state of cultivation; a good two-story Dwelling well finished, with six comfortable rooms; fire place in each; a good double Barn 64 by 32 feet with a good horse power for a threshing and other machinery; large and commodious frame Stables and Cries, &c. The Farm is well calculated for a grazing farm, having water in all the fields and lots, a fine bold running spring convenient to the house, of never-failing limestone water, with several other good springs on the place. Also, a most desirable Apple Orchard; in fact one of the most desirable situations in all North-western Georgia.

TERMS.—One-half in hand; balance in one and two years, with interest from date.

Persons desirous to purchase would do well to call on, or address me soon. Possession given first of January.

R. A. RAMSEY.

Ringgold, Ga., July, 1857.

Aug57—3t\*

## PLANTATION IN SOUTH-WESTERN

Georgia For Sale,

SITUATED on the east side of Flint River, 10 miles below Albany, the river forming the Western boundary, containing 1,346 acres (more or less) first quality PINE LAND. Between 500 and 600 acres are in cultivation, all of which is fresh, none of it having been cultivated more than 4 years. Thirty or forty acres will comprise all the waste land on the plantation. The improvements are a good Gin House, Overseer's House, C. ibs, Negro Houses, etc.

The ill health of the proprietor is his reason for wishing to sell. Apply to S. H. HARRIS, on the Plantation, or E. B. BALLOU, Quincy, Fla.

☞ Possession given 1st January next.

Albany, Ga., March 27, 1857.

Aug57—5t\*

## IMPORTANT TO PLANTERS.

THE RICHMOND FACTORY (Richmond county, Ga.) continues to MANUFACTURE WOOLEN CLOTH, at 12½ cents per yard—finding every material except the Wool. The extensive and constantly increasing patronage the Factory has enjoyed for years past, assure the proprietors that the article of Winter Clothing for Negroes made by them, has not been surpassed by any cloth made North or South.

Recent extensive improvements and additions not only enable us to keep up the standard of the Goods, but to secure an early delivery of the same.

Planters or others, who may desire to avail themselves of this opportunity and secure a first rate article at a moderate cost have only to send us the Wool washed clean in cold water (if sent dirty one-half a cent per yard extra will be charged for washing.) Burry Wool is not objectionable—the Burrs are removed by machinery.

The name of the owner should be marked on all packages sent us. Wool sent by any of the Railroads in Georgia, Alabama or South Carolina, to the Augusta Depot, marked Richmond Factory, (and owner's name also,) will be regularly and promptly received, and the cloth when made, returned to the points directed. Each parcel is made up in the turn received, hence an early delivery is always desirable. All instructions to

June57—6t

W. I. SCHLEY, President, Augusta, Ga.

## SORGHUM SACCHAROMETERS.

THE Subscriber has a number of these instruments—invented and each one proved by himself—which will be furnished to any who may desire this indispensable guide to the inexperienced in SYRUP MAKING.

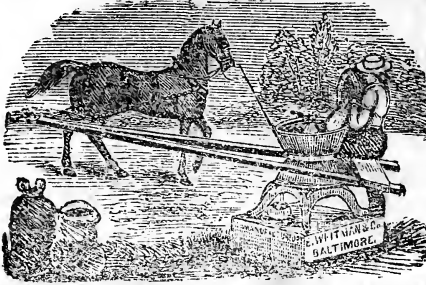
Full directions accompany the instruments. Price \$3, and 10 postage stamps when sent by mail.

ROBERT BATTEY, M. D.  
Rome, Georgia.

July57—3t



## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAYNORD'S "CHAMPION."

The Manufacturers of the "Young America" claim for this Mill:

- 1st. That it will crush Corn and Cob; also, grind fine Meal.
- 2nd. That the entire grinding surface can easily be replaced at a small cost.
- 3rd. That it has an extra set of fine and coarse plates.
- 4th. That it deposits meal in a box or bag.
- 5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.
- 6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding part lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf

H. & J. MOORE & CO.

LANDS IN SOUTH WESTERN GEORGIA  
For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany by 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

W. W. CHEEVER,

Albany, Ga., Oct. 10th. 1856.

Nov56—tf

## "FRUITLAND NURSERY," AUGUSTA, GA.

IMPORTANT NEW ARRANGEMENT.

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which number many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen orchards of M. BERCKMANS contain all the best and rarest variety of other fruit known in Europe and America, from which we shall cull every thing of special merit. It is not our object to multiply varieties, but to select, with the greatest care, the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, Roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at very moderate prices.

Full Descriptive and Priced Catalogues, sent post paid to all applicants. Address, D. REDMOND, Augusta, Ga.  
April57—tf

NATIONAL AGRICULTURAL AND SEED  
Warehouse.

NO: 251 Pearl street (between Fulton and John streets), New York.

TREDWELL & JONES, Manufacturers, Importers and Dealers in all kinds of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and MACHINERY for Plantation use, invite the attention of Dealers and Planters to their large assortment of Implements expressly adapted for the South—comprising upwards of ONE HUNDRED and FIFTY different styles of PLOUGHS and Plough Castings, and patterns for Casting all kinds of Plantation Machinery.

FERTILIZERS, FIELD and GARDEN SEEDS.

Any Implements, Castings or Machinery manufactured to order, at short notice, in a superior manner. May57—tf

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, and all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

## PRICES.

2½ Horse Power.....	\$375
4 do. do.....	500
6 do. do.....	700
8 do. do.....	900
10 do. do.....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

D. C. LOWBER,

Feb57—1y

98 Magazine St., New Orleans.

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Somerville Plank Road, 11 miles east of Memphis, containing 640 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska;" a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

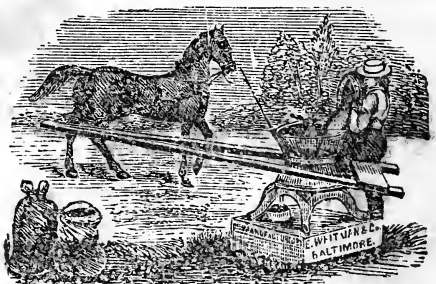
JAMES R. FERGUSON,

June56—tf

Memphis, Tenn;

## YOUNG AMERICA CORN AND COB MILL.

The Cheapest and best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear can be removed from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee as also at a large number of County Fairs in various States.

THE YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn and Cob MILL yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

JOHN & THOS A. JONES.

March—tf

# SCOTT'S LITTLE GIANT CORN AND COB Mill Improved.



(PATENTED MAY 10, 1854.)

Manufactured of the best materials by SCOTT, MOCK-BEE & CO., under the immediate supervision of the Patente.

**CARMICHAEL & BEAN GENERAL  
AGENTS, AUGUSTA, GA.**

THE attention of Planters and Stock Feeders is respectfully called to this MILL, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being only necessary to fasten them down to a floor or platform, and for this purpose the requisite screws and a printed card of directions will accompany each mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION**—The Little Giant has always taken the first premium wherever exhibited; and we challenge the patentees, manufacturers and agents of all other mills, to produce *proofs* of its ever having been equalled at any trial conducted by disinterested persons and on fair terms. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These mills are guaranteed against defects or breakage, when used according to the directions and as evidence of their durability, a No. 2 Mill, which has ground nine thousand bushels, and a No. 3 Mill, which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold at \$50. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession official written and printed testimonials which we will gladly exhibit to persons wanting mills, showing and proving the superiority of the Little Giant over all others:

## TESTIMONIALS.

AUGUSTA, GA., April 3, 1855

I have been running one of SCOTT'S LITTLE GIANT CORN AND COB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour. But I have ground over thirty-five bushels in an hour and a half, or equal to twenty-three and half bushels per hour. In feeding thirty horses I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of crusher ever got up, and if I could not replace mine, I would not sell it for five hundred dollars.

I. D. M. THEWES,

Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20, 1857.

Messrs. CARMICHAEL & BEAN—Gents.—After having used the Little Giant constantly for two years, I cheerfully confirm every statement made in my certificate of the 3d of April, 1855.

I. D. MATHEWS.

BEECH ISLAND, S. C. April 1, 1857.

[ Messrs. CARMICHAEL & BEAN, Augusta, Ga.—Gents.—I have

had a No. 3 Little Giant in constant use for the last two years, and have fed my stock entirely on Corn and Cob Meal. I have never worked my horses and mules harder than during this time, and they have never been in better condition than they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent by using the mill. I am acquainted with several kinds of crushers, but consider the Little Giant far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gents.—We are using the Little Giant Corn and Cob Mills which we bought from you, and hereby recommend them to Planters and Stock Feeders as the most simple and durable, the most easily propelled, and best crushers we have ever seen, and by the use of which we believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr. Crawford has two mills in use.

A. J. RAMBO, Edgefield District, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTUP, Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GODDE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

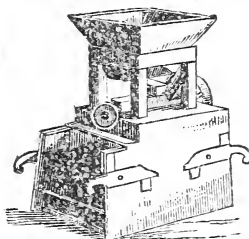
PORTER FLEMING, Augusta, Ga.

JAMES TORRYE, Lexington, Miss.

May 57—tf

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



**FELTON'S  
PATENT  
PORTABLE GRAIN MILL.  
TROY, N. Y.**

FOR grinding all kinds of Grain, including Corn and Cob, and adapted to the use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Planter, it is destined to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. It is very simple in construction,—the grinding surfaces are of the most durable character, and are Self-Sharpening, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost,—and the price comes within the reach of every Planter and Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is capable of grinding three bushels per hour with one horse power, and from six to eight bushels with two horse power; it grinds sufficiently fine for family use, and does not heat the meal—a most valuable feature.

The perfecting of this mill is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. Numerous testimonials, in its favor have been received and will be cheerfully exhibited to all.

All orders for Mills, Communications, &c., will be promptly attended to, and should be addressed to the Agent.

May 57—tf

D. CHAFFEE, Augusta, Ga.

## FRUITLAND NURSERY, AUGUSTA, GA.

Fruits and Flowers for the South!

THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

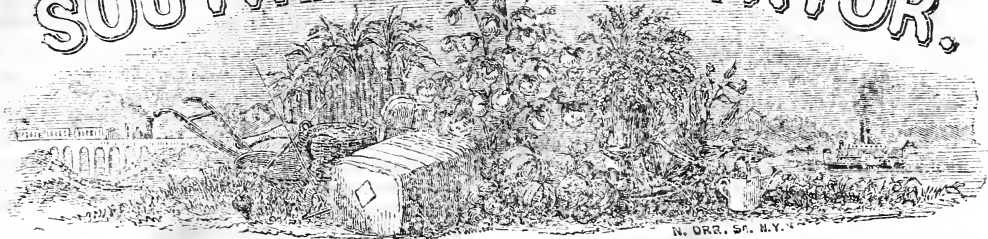
This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing

D. REDMOND, Augusta, Ga.

Dec 56—if



# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE,

VOL. XV.

AUGUSTA, GA., OCTOBER, 1857.

NO. 10.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M. D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH--OCTOBER.

#### THE PLANTATION.

**Cotton Picking** will soon require nearly the entire force of the plantation. Push it forward vigorously, and endeavor to get your crop ginned, packed and ready for market before the coming on of winter rains and bad roads. Let every operation connected with the putting up of Cotton be performed in the most careful manner, as the market value is often materially influenced by seemingly slight defects in management. The skillful handling and proper putting up, even of inferior grades, will be found to "pay," especially this year of short crops.

**Corn.**—Gather your Corn and put away securely in airy, tight-roofed and well locked cribs. Do not be too lavish of it in feeding—do not waste a grain, or fling it out carelessly to your stock, even if you have an abundance. Husband it carefully—feed generously and plentifully, but not thoughtlessly or wastefully. In this connection, we cannot too strongly urge the economy of using machines like the "Little Giant," "Young America," and Rowe's Mill for cracking both corn and cob. Feed cutters for rough forage, will also be found economical.

**Cono Peas.**—Gather and store away all these as soon as possible. Sack your seed peas, and keep in a dry, airy place. Gather, also, as fast as ripe, the seed of the Chinese Prolific Pea. It promises to be one of our greatest forage plants and is bearing enormous quantities of pods.

**Sweet Potatoes.**—This crop may be dug the latter part of this month, or as soon as the vines are withered by the first frost. A contemporary gives us the following indication of the ripeness or maturity of the Sweet Potato:—"Put several potatoes from different parts of your patch, break them and give them time to dry, and if the fresh broken part dry over perfectly white, the potato is ripe and should be dug. But if of a darkish hue, the potato is not ripe and should be left to ripen. If dug when ripe they will keep, if not, they will rot." Put up your Potatoes in small "banks" (25 to 50 bushels) and reject all cut

or bruised roots. See, also, that they are perfectly dry before banking. Let the foundation of the banks be 12 or 18 inches higher than the surrounding surface, on an elevation, where water will not settle or stand.

**Egyptian and other Winter Oats, Rye, Barley, Clover, Lucerne** and other hardy grasses should be sown at once. Plow deep, pulverize finely and manure heavily for all these crops, if you desire proper remuneration for your labor.

**Hay**—Many varieties of native grasses may yet be worth gathering, to eke out winter supplies. But do not allow the grass to dry up and become worthless, before gathering. The proper time to cut is while it is in blossom. *Pindar* and *Sweet Potato vines* are good fodder, when properly cured and stowed away. They should be cut up before feeding out.

**Turnips**—It is late for field crops of Turnips; but, if your early sowings have failed, try again now. We have known good crops made after the first of October. Bring your growing Turnips to a proper stand, and keep the ground clean and open.

**Pumpkins** should be gathered as soon as ripe, and stored on wellaired scaffolds or tiers of rails, one above the other, so far apart that the layers of pumpkins cannot touch or rest upon each other. Put up in this way, with a slight covering or protection from the frost, they will keep nearly all winter. There should be a water tight roof over the scaffolds, and straw may be used as protection from frost. Placed in a heap or pile, pumpkins soon decay and become worthless. Before feeding to your stock they should be boiled up, with a sprinkling of meal or bran.

**Hedges** of the *Osage Orange*, *Cherokee* and *Macartney Rose*, *Harry Locust*, *Evergreen Thorn*, (*Crotagus Pyramidalis*) *Pyrus Japonica*, &c., &c., may be set out the latter part of this month, or as soon as the leaves of deciduous trees fall.

#### THE GARDEN.

Sow **Cabbage**, **Turnips**, **Parsnips**, **Lettuce**, **Carrots**, **Radishes**, &c., &c. Prepare a bed in such a way that it can be protected again t frost. The safest way of doing it, is by excavating it 1 foot below the general surface, and surrounding it with planks. On such a bed transplant your young cabbages, and protect them in cold weather for Spring use. Haul plenty of manure on your garden, have it well spaded, burying under all enriching animal or vegetable matter. Transplant **Brocoli**, **Cabbages**, **Celery**, **Collards**, &c. If your Cauliflower and Brocoli have not yet made heads by the latter part of this month, take them up, and transplant them under a shed, where they



can be protected, that they may head. Work and manure your *Asparagus* beds, not forgetting to give them a liberal top dressing of salt before spring. Do not suffer weeds to cumber your garden and exhaust the soil, but turn them under, as soon as possible, and you will find the soil much improved by next Spring. Save all old bones, soap-suds, dead leaves, decaying vegetables, &c., &c., and make up into compost heaps for future use. Plow and subsoil your ground for the planting of your Orchards, directions for which will be found in an article on another page of this number. November, December and January are the best months for planting trees, vines, &c.

#### STRAWBERRY BEDS

The best soil for this delicious fruit is a sandy or even a gravelly loam, moist and rich in vegetable manure. An excellent compost for an acre of ground would be 60 bushels of leaf mould from the woods, 20 bushels of leached ashes, 5 bushels lime and 3 or 4 quarts of salt. Mix thoroughly, let it stand 2 or 3 days, scatter broadcast and plow in. Then harrow or rake the surface, making it fine, and set your plants in rows 3 feet apart, and 1 foot to 18 inches in the row. After the plants become well rooted, cover the whole ground with partly decomposed leaves from the forest, leaving nothing exposed but the stems and fruit stalks of the plants.

#### FARMING NORTH AND SOUTH.

EDITORS SOUTHERN CULTIVATOR—That "Pennsylvania farmer," on page 258, present volume, should not "hide his light under a bushel." We want just such men as "A. C.," to give us his helping hand, and I doubt but that he will do his adopted country more service by his pen than will the commander of the army and navy of the United States, though he also is from Pennsylvania. That closing remark is worth more to me than an article beginning at the flood and twisting in Roman Agriculture and Varro and Cato and Collumella and Choctaw and Billy Bowlegs thrown in, viz: "commenced to seed down a portion of our land to grass, for the use of our cattle, hogs, &c." That is the text from which our people should be lectured, if we are ever to hold up our heads. Some folks think the South must rely upon the democratic party, another thinks all politicians are alike, and we must rely upon religious people; but my humble opinion is, the strength lies in the masses, and their strength in providing for home.

If the South, to a man, will "seed down a portion of our land to grass," and let it be a fair portion, I am willing to let politicians, and new school or old school, negro children and white children mixed in school policy, each and all go their own way to kingdom-come, and not fear for our blessed land. Give us the means to live within ourselves, and, with cotton bales as a bulwark, we are safe. This can only be done by the policy of "A. C." Call him out and let us all listen to his teachings, and profit therefrom. We have had hints from our own folks on that subject until our ears have become used thereto. Give us the light.

Oh! for the day when locks to corn houses and steel-yards to the meat house will be unknown; then we will have mutton and wool, horses and mules—in dependence!

Yours, &c.,

AN OLD SOUTH CAROLINIAN.

August, 1857.

UNHEALTHY HOUSES—No fact is better established than this, viz:—That dwellings so located as not to have the direct rays of the sun, on either side, are not to be compared to those on which the light is freely admitted. There is a great deal more sickness in shaded houses than in those about which light and air circulate.

#### PORTABLE SAW-MILL.

EDITORS SOUTHERN CULTIVATOR—My letter in the August number of the *Cultivator*, in answer to a correspondent in the July number, on the subject of Portable Saw-Mills, has brought me a "shower" of letters of inquiry from all quarters of the "Sunny South."

I am delighted to see this spirit of industry and enterprise manifested, and if persisted in, it will show to the world that the people of that beautiful "Land of Promise" are waking up to their interest and determined to work out their own salvation, the croakings of Horace Greely & Co. to the contrary notwithstanding.

For the benefit of all whom it may concern (for I find it impossible to answer each separately) I take this method of answering through your valuable and widely circulating journal, that upon inquiry at the Patent office, the Saw Mill spoken of was patented by and belongs to a Mr. John A. Taplin, of Fishkill, Dutchess county, New York; who will, no doubt, be happy to give all satisfactory information to all correspondents who may honor him with their address.

The gentleman who has charge of that branch of business, at the Patent office, says that the saw a Saw-Mill at work at Glennville, Barbour county, Alabama, about 10 years ago, which was worked by 3 horses and sawed 800 feet of lumber per day. It was called the Wood-Pecker Saw-Mill, was an Alabama invention, and hailed from Mobile.

Very respectfully, M. GARRETT.

Washington, D. C., August, 1857.

#### DITCHING HILL SIDE---MR. HARMON'S Terms.

EDITORS SOUTHERN CULTIVATOR—That there may be no mistake as to the terms upon which I will engage in the business of Hill Side Ditching and Horizontalizing, I deem it proper to state now, and request you to publish it in your October number, that my price for locating the ditches and guide rows is two dollars per acre, with two hands furnished me to assist me in managing the compass and level, and sticking down the pins—myself and horse boarded while at the work. I will superintend the construction of a few ditches on each place, and give such instructions to the overseer or manager of the farm as may be necessary to enable him to open the balance of them without any mistake whatever. Any man can, after seeing 2 or 3 ditches made, open the others just like it. The main, vital point, is their location—the location of the guide rows. I prefer this arrangement to charging a fixed sum per day, from the fact that if I should, perchance; stay longer in a field than my employer thought I ought, he would not charge me with killing time for his money. If I engage in the business in question, I intend to leave no field until I am satisfied that the ground work of its salvation is laid—the occupant having nothing to do but to follow my instructions, and those ugly gullies in Georgia which yawn to the traveler's view, and spoil the beauty of the landscape, will be numbered with the things that were.

In conclusion, permit me to say to those who contemplate employing me next year to ditch and horizontalize their plantations, that they must all be patient. I cannot perform the operation on everybody's place at the same time. And here lies the only difficulty in my way. I fear that all would want that work done at the same time, and that I should be idle too much of my time. I advise those who want my services to sow down the most broken land this fall in wheat or oats or other grain, leaving the surface as level as may be. I can then operate in the spring (and winter) until they have to plant, and return after harvest and grade their stubble land, then after the crop is off I could operate again; and thus be busy a



good part of the time. I will say to my South Carolina and Alabama friends who have addressed me on the subject, that if I can steal time from Georgia, I will attend to their calls with pleasure.

Yours, &c.,  
G. D. HARMON.

Utica, Miss., Aug., 1857.

[The terms of Mr. HARMON are, all things considered, very fair and liberal, and we hope his proposition will be numerously responded to. We have several names on our book now, and hope our friends will fill up a sufficient list as soon as possible. A thorough system of *land saving*, by hill side ditching, would, if extensively practiced, add millions to the wealth of our country, in a few years, and prevent the removal of a vast amount of capital and energy from the older planting States. We trust Mr. HARMON will be warmly encouraged, and that this enterprise will induce an army of young and vigorous men, also, to qualify themselves for the glorious work to which he proposes to devote himself.—*Eds. So. Cult.*]

#### RAISING CHICKENS AND TURKEYS.

EDITORS SOUTHERN CULTIVATOR—I have been induced to give you my experience in Poultry raising for the last few years, and my success. In 1854 I lost most of my turkeys and chickens from what is called cholera, my old fowls particularly. In 1855 and '56 I was more successful, and this year I have had no sickness nor loss from gapes, or anything, except some few from lice. I scald my hen house with greasy water, roost poles and nests, where there are none setting, and every brood that is hatched I grease the mother with the top of the pot, or any soft grease, all over the breast and neck underneath the wings and on the upper side of the wings, all in between the large quills, until they are quite wet. The next day the young chicks will look as if they had been in the water, but it will not hurt them at all. In the fourth week, grease the little ones a ring as low on the neck as you can, and grease the head and under the wings but little, for if you do it weakens them; and your work is done. Any common family can raise three or four hundred if they will pursue my plan. I want this to have as wide a circulation as possible, for it is quite a loss to a family after raising the fowls to have them swept off by cholera in a few days. Copperas put in the trough where they drink, twice a week, keeps them healthy. A piece the size of a small hickory nut to one gallon of water. Now, every one who reads, try my plan, and there will be no want of chickens or turkeys in the State, or any place where this course is pursued. I am a reliable person, and write the plain truth, and nothing but what I know from experience.

Very respectfully, yours,

AN OLD HOUSEKEEPER.

Madison, Ga., August, 1857

P. S.—I feed young turkies with cold corn-bread, and plates of butter-milk are set within their reach.

SOAP FOR KILLING BORERS IN TREES.—S. S. Green of East Cambridge, has made an experiment with this article. He has in his garden a white ash tree, which was full of these worms, so fatal to our fruit and ornamental trees. He covered every place on the tree which appeared to be wounded by them, with common hard soap, nicely rubbed into the place where the borer seemed to have entered. During the rains of this week, the soap dissolved and penetrated to the worms, which forced them out by scores, causing their death. We think this the best remedy yet discovered for destroying these nuisances to gardens and orchards.—*Exchange.*

#### A NOVELTY--THE HOP TREE.

The accompanying representation is taken from a daguerreotype of a tree of this kind growing upon the grounds of Edward N. Shelton, President of the Manufacturers' Bank, Birmingham, Conn., and is said to be a perfect likeness of this tree.



This species of the hop has long been known and cultivated as an ornamental shade tree, but its utility and superiority over the common hop has not, until recently, been known and acknowledged. It bears the hops in prolific clusters, they are of greater strength and greater flavor; and the tree in every respect combines utility with ornament.

We extract from the report of the Agricultural Division of the Patent Office:

HOPS.—Mr. A. B. Hull, of Georgetown, Conn., has furnished this office with an interesting report of the condition and progress of Agriculture in Fairfield county, and in connection mentions the cultivation of a hop tree by Mr. Henry C. Williams. Mr. W. does not claim to have first discovered it, as it has long been cultivated in that vicinity as an ornamental tree, but claims to be the first to discover its utility. All who have ever used this hop are said to pronounce it superior to the common variety, a much less quantity answering all the purposes of this article. This tree is said to be hardy, and adapted to any soil or location, and deserves to supersede (as at no distant day it will) the unsightly hop-poles to be seen in many gardens.

A specimen accompanied the report. It appears to be of a very fine quality.

Further information can be had of H. C. Williams, Wilton, Conn., or A. S. Batterson, 160 Reade street, New York.

All subscriptions to the *Southern Cultivator* begin with the January number.

### ENLARGING THE CULTIVATOR--A PROPOSITION--Manures--Hill Side Ditching, &c.

EDITORS SOUTHERN CULTIVATOR--We have had a glorious "season" to-day--rained nearly all day. Cotton and corn look remarkably well--cotton rather too late--no blooms yet that I have heard of, but full of squares, short pointed, and well limbed.

There will be a heavy crop of corn made in this country. This "season" will make all early planted corn.

I notice that you propose to enlarge and improve the *Cultivator*, provided its circulation is increased so as to enable you to do so. The *Cultivator* should be the fire-side companion of every Southern planter and gardener. *It has done more to improve Southern Agriculture than any other Journal in the United States, and deserves the everlasting gratitude of every lover of his country.* I propose, therefore, to be one of 5,000 of your subscribers, who will send you one new subscriber, at least, and as many more as we can. Send them if we have to pay the dollar ourselves--one dollar is worth only 100 cents to each of us, whilst it would be worth \$5,000 to you; and the *Cultivator* enlarged and improved would refund our dimes tenfold.

Please respond to this proposition, one and all.

I notice in your July No. your Blakely correspondent, "J. C." intends to adopt a system of manure making, &c. The object is a laudable one. I am glad to see an increased interest manifested on this subject throughout the land, and hope such interest may continue to grow warmer and warmer, until the last red hill of the South shall be graced with a luxuriant crop of cotton, corn, or wheat upon its bosom.

But permit me to say to "J. C." that this desirable object cannot be accomplished unless the system adopted is such as to differ very materially from the plan ordinarily pursued in this country (I mean the South).

If you had an inexhaustible pile of manure all ready for the field laying at your barn yard, it would not pay to haul it to the field most distant from the lot, in the plantation. It is just as easy to make the compost in the field or near it, where it is needed, as it is to make it at the barn. In every field that you pasture, have a stock lot built on the highest point, into which haul leaves, corn stalks, &c., in which never fail to pen your stock every night, until the vegetable matter is composted, then move your lot to another point, and so on.

When your compost is made, rake it up in large bulks and plow the lots, and with the loose plowed earth cover your manure piles. Let them remain there until you wish to use them, and you will find that you have a fine lot of compost that can be carted out at very little expense.

This is the only plan, in my opinion, by which a plantation may be manured by the "wholesale." Manure may be made in the horse lot and barn yard for the fields which surround them.

Now, the above will not pay, unless the manure can be retained in the soil, and on the identical spot where it is put.

It is a hopeless job to undertake to improve land, if the manure is permitted with the soil to wash off. A proper system of hill side ditching and horizontal culture must accompany any system of composting to insure success. This is a fact as applied to hills that no one will deny.

In conclusion, permit me to thank Col H. J. Cannon, for sentiments expressed in his last. Let us do all we can to save our country from ruin. Col C. has done much good since he took the field for level culture. It is the only system that is worth anything in my estimation. Good night.

G. D. HARMON.

Utica, Miss., 1857.

[We heartily thank our friend, HARMON, for his liberal

proposition respecting the *Cultivator*, and will say that if it is responded to in the right spirit, prior to the first of December, we will, next year, give our readers a journal as large and handsome, as it is admitted to be useful and practical.--Eds.

### HABITS AND PRIVILEGES OF SEA ISLAND PLANTERS.

EDITORS SOUTHERN CULTIVATOR--On reviewing the back numbers of your interesting journal, I have been surprised to observe how seldom any communication appears from Sea Island Planters. Why this is so, I find difficulty in conjecturing. It cannot surely be that from their contiguity to the sea they have become so *saluted* that there remains nothing *fresh* in them. As we do not believe or admit this, we will set about "guessing" some other reasons. Doubtless, atmospheric influence during a portion of the year occasions much of the inactivity and supineness of our region. The same disposition we know belongs, in part, to almost every locality during the warm months of the year; but no where so strikingly as on the sea coast. There the climate is peculiarly stimulative during certain hours, with corresponding opposite effects at other hours. Indulged with the delightful "sea breeze" for most of the day, while the nights are usually warm and still, the system experiences a degree of languor for want of refreshing and invigorating repose which indisposes to any exertion, especially any of a mental character. But this climatic effect, however correctly stated, and however general in its application, is almost exceptional to the class of whom we write, or at least exerts over them so slight an influence that it can be easily overcome. Judging from appearances, young planters seem but little affected by it and we must "guess" some other reason for their delinquency.

We guess, then, that idleness and love of pleasure deter many from improving themselves, more than ought else. To the proof; and first, we hold that every man, if he be a *man*, will wish to improve in whatever occupation he engages, both for the attainment of success, and from self-respect. And again, we hold that no set of men enjoy greater privileges for the accomplishment of those ends than Sea Island Planters. To none other is granted so much immunity from toil, and so much leisure for the improvement of their minds. Their interests are concentrated within a small area of space, and by observing system, as every one should who expects to accomplish much in life, but a small portion of each day is requisite for the performance of our-door duties.

How, then, should the greater and remaining portion of his time be employed? Much of it certainly for the improvement of his mind, his god-like nature. Is it so spent? By some we know it is. But is it not so by the majority, for it is equally obligatory on all? Alas! would that we were able to reply affirmatively, but truth demands the negative. Laziness characterizes most, in defiance of the advantages surrounding them. And is not this the bane of Southern life, that which brings more just reproach on us, as a people, than all else besides. Nurtured in idleness and luxury, how apt we are to pursue the tracks made for us, and thus perpetuate habits which should be abolished.

How sad to behold young planters content to do so little. Many of them have enjoyed opportunities of education which should have fitted them for much usefulness, and while in Academic or College halls, they gave great encouragement for the future. But alas! what becomes of those hopes and promises when they are possessed of their "plantation and niggers!" Do they, before becoming planters, take a bath at the "fountain of Lethe," that the memory of former things might no longer disturb them,

that without interruption they may enjoy their "*otium cum dignitate*." What a miserable translation do many make practically of this familiar latin phrase.

Let us visit one of our "summer residences," take a peep into the every day life of our young planters, and notice how their time is occupied. Our first impression will be that they are very industrious men, judging from the punctuality observed for leaving the village each morning to attend to business, their fast travellers causing but little delay on the road. Their places are visited; "the driver" summoned to answer familiar queries, "the nurse" comes and makes her report in favor of the sick, and against, "de doctor," who "cums more dan's any 'casion for." the field, if not too far distant, is visited that the cotton may know it is closely watched, and behave accordingly; then the sulkey wheels are again in motion, and by mid-day or sooner the planter is where he was a few hours earlier, *the day's business ended*.

Now has arrived the glorious opportunity of leisure time—priceless time—the employment of which is to tell for futurity. How is it engaged, *cum dignitate*? Let us see—here are two or three of those who have returned, whither are they going so merrily? With unwearied and elastic steps they proceed till arriving at the door they enter—the Billiard Room. Others follow soon and and discover "the same attractive spot." But some we notice in a different direction, and with eager hope and earnest expectation we notice whither they tend. Ah! we see the fishing and the sail-boat await their coming.

But this is only natural we say; we all need recreation, and young men will resort to these amusements only occasionally; they have too much self respect, too much regard for the fleeting hours of time, too much affection for their families to be constantly or often engaged in this manner.

Now, if this were only so, how much could then be hoped for of these educated, privileged young men. How truly would they then enjoy their "leisure with dignity" How soon would the billiard room be supplanted by the reading room, and the ushing boat yield to some more ennobling pursuit. Then would Southern Literature and Agricultural Improvement be sustained and encouraged. Then would the South at once gain the position belonging to her, and inspire her enemies with the fear and respect which her transcendent advantages and her unequalled talent can command.

The young men of our country should start from their slumbers as from a bed of poppies, ere their drowsiness issue in the sleep of death. Let them realize the powers within them, and use them profitably. There are foes within and around them calling for all their wakeful energies.

More than all; there is a record book open on high, wherein are written "the deeds done in the body," and in that book, at the last day, will be found an account of many, many misspent opportunities. *Then, when too late, will be known the value of time.* M.

Jokrus Island. 1857.

#### BAGGETT BAR PLOW AND SCRAPER vs. THE Yost Scraper.

EDITORS SOUTHERN CULTIVATOR—It is with much pleasure that I take pen in hand to inform you of a great improvement made in the combination of the Bar-Plow and Scraper, so that the work of baring off and scraping of one side of a row can be done perfectly at one end at the same time by one hand and one horse. This improvement was made by Col. Wm. J. Baggett, of Lawrence county, and is simply an attachment to the old Taylor or any other bar scraper. This improvement will be good news to the planters generally, for they will now have to throw away their old bar scraper, as they would have to do, if they

bought the Yost Scraper. The Yost Scraper is a good thing and does good work in the hands of an experienced plowman, but they cannot be so indiscriminately used as the Baggett Scraper, and the reasons apparent to me from a view of the model I took a few days ago in the hands of a friend of mine, and a partner of the Col's in this enterprise. The advantages that the Baggett Scraper possesses over the Yost Scraper are as follows:

The Baggett Scraper having a bar under it makes that part of it the controlling part of the implement upon which it is made to turn to the right or to the left or to make both implements take more or less dirt simultaneously as desired. With the Yost Scraper the bar plow of that implement governs it, and the plowman has to watch both plow and scraper. The bar being under the plow and the scraper being attached to an upright to the left and on a continuation of the beam behind the bar plow makes the implement somewhat hard to control, and as the governing power is under the bar plow the scraper must necessarily take the dirt when the hands are depressed while the plow leaves it, and when elevating them the plow must take the dirt, while the scraper leaves it, and so on *visa versa*, making a zig-zag uneven furrow. Not so with the Baggett Scraper, the controlling power of it is the bar, under the scraper, the plow being placed before it on the right of the beam, and attached to an upright iron bar which runs through a coff which can be tightened or loosened at pleasure, allowing the plow to be moved up or down, so as to adjust it to cut any depth that may be required. It is also braced forward by a rod with which the plow is made adjustable fore and aft. The scraper is also made adjustable, by which it can be moved laterally to the right or to the left, and is, take it altogether, a very simple combination by which the work is done more easily and performs the work perfectly with one horse and one hand, which under the old regime requires two.

Col. Baggett has applied for a patent for this combination, and intends sending you an engraving of the same as soon as it can be obtained, in order that you may, in the form of an advertisement, place it more properly before your readers.

Very respectfully,

FRANCIS MARSHAL.

New Orleans, Aug., 1857.

#### THE GRAPE CULTURE.

(Continued from our last, page 284.)

In the fall, after the first killing frost, manure the vineyard broadcast with 20 loads of the compost above stated, plow the ground in the narrow rows and let it lie. In November the dead cuttings may be replaced by young vines from the nursery, if they are two years old, otherwise it will be safer to defer it till the next year. About the last of January or first of February, trim down the young vines to within one eye or bud of the ground. This bud forms the head or crown of the vine.

Prepare substantial stakes of fat lightwood, heart pine, post oak, or other durable wood, six feet long, two inches square, point them at one end, then take up the temporary stakes and drive the new posts about eighteen inches into the ground—when the vines are grown long enough, tie them slightly to the posts with some soft substance as silk grass or ravel of gunny bagging. Remove the earth five or six inches deep round the stem and cut off the surface roots some two or three or more around the sides of the stem, and return the earth to the stem. During the summer, the vineyard must be carefully hoed twice, rub off the shoots at the foot of the stem, so as to give vigor to the main twigs or branches; this concludes the second year's cultivation.

In the third year, the vines must undergo the same ope-

ration of trimming down to the lowest bud. Some prefer to delay manuring until this time, but if the soil is thin, it is best to apply it the first or second year. Sometimes two spurs are allowed to grow this year, but all experience teaches that it is best to leave but one, as the roots will take better hold and the stalk will be more vigorous. If the missing places in the vineyard are still vacant, replace them now by young, vigorous vines from the nursery, or, if taken from the duplicates in the vineyard, care must be had to avoid injuring the remaining plants in the hills.

During the third year, the ends of the vines may be pinched off about the latter end of August, so as to ripen the wood and give it strength to bear fruit the next year. Plow the vineyard once and hoe it twice.

The fourth year, if the vines have been well cultivated, they will commence bearing. They should now be trimmed to the third bud; nothing should be planted in the vineyard after the first year, as the vines require all the nourishment the soil is capable to give them—avoid working the vineyard in wet weather or between showers, select settled weather—and don't walk much through the vineyard, in taking a view of it walk around it, except when it is necessary to work in it. The vines must be tied to the stakes carefully and early in the morning on the north side 12 inches from the ground—and as they grow bend them carefully and tie them about two-thirds up the stalk and from thence bend them from the second tie to the south in a bow down to within one-third of the stake from the groynd, and tie them at that point. One spur must now be left on the opposite side of the stalk to grow for the next year, leaving two eyes. If it is intended to have two stakes and two bows, the wide row should be laid off across the hill side five and a half feet apart and the narrow rows up and down the hill four feet apart, so as to leave room for plowing, as in this case the vines must be bowed north and south, thereby receiving the full rays of the sun.

There is another mode of training the vines upon trellises. Prepare posts 7 feet long  $2\frac{1}{2}$  or three inches square mark a line at 2 feet from the foot intended to be set in the ground, saw a notch three inches wide, one and a half inches deep, two feet above the mark which is to go to the edge of the ground, and another similar notch about two and a half or three feet above the lower one, then insert the posts 2 feet in the ground, at 8 feet distant from each other, then pin sawed slats 3 by  $1\frac{1}{2}$  inches, 16 feet long across three of the posts and so continue till the entire line is finished. The rows should be 6 feet apart—north and south—the vines should be trained to the trellis north and south, they should be planted 4 feet apart in the drill, *i. e.* two vines between every post. Many suckers will put out about the head of the vine which must be rubbed off except two, these must be cut down to one eye, to be kept in reserve to take the place of the two bearing branches. When these show symptoms of decline, they may be cut down and the new ones suffered to grow and take their place. In this way the vineyard can be kept up with strong vigorous vines for a long period of years.

The Scuppernong may be cultivated to advantage on trellises—on an extensive scale to make wine for sale—but for domestic use half a dozen vines on scaffolding will yield an abundant supply for table use and for wine. On a farm in North Carolina, there is one solitary Scuppernong vine, which yields grapes enough for eating and preserving, besides making a barrel of wine annually!

#### SUMMER TRIMMING.

The most important part of the grape culture is to give frequent attention to the trimming of the vines in summer. Complete directions cannot be given without ocular demonstration, and then the vintner must exercise his own judgment and profit by experience as to how the labors should

be most advantageously performed to preserve the vines in a healthy state, and at the same time, to cause them to bear good and abundant fruit. The American mind is inventive enough and with a little experience easily comprehends the best mode of doing things, at the same time on the outset of a new undertaking, if information can be had on reasonable terms, it is wise to avail ourselves of it. The British at one time sent men to Holland to learn how to manufacture fine white linen and superfine broad woolen cloth; subsequently the British improved on the knowledge they had received from the Netherlands, and finally supplanted them in the manufacture of these articles so as to undersell them at home and abroad. We may now likewise learn from the Germans (without going to Germany) how to cultivate the vine and make good wine. A good vintner might be employed to attend three vineyards or more in the same vicinity—and by dividing his wages into three or more parts, the expense to each would be moderate. As to allowing any one the sum of \$700 to attend a vineyard of one acre and the employer to do all the laborious part of it, is preposterous, and ought not to be submitted to by any planter or farmer.

A compilation and extracts will now be given from the best works extant on the cultivation of the vine, and the manufacture of wine.

Reemelin, of Ohio, recommends, "1st to secure each summer a proper amount of mature bearing wood for the next and subsequent years, and by thus concentrating upon particular parts of the vine all its fructifying powers, preserve it in a healthy and vigorous condition."

"2d. To improve the quality of the fruit, whether intended for the table or for the making of wine."

"Each spur intended for a thigh (a thigh is the branch or limb intended to grow for bearing) should not be less than 6 nor more than 10 inches long when trimmed, leaving at least 2 and not more than 3 joints and buds upon it. The head will be well formed and of good size, and care will have been taken to get the thighs to grow out of the sides of the head rather than its centre. From the buds on each thigh will, during the summer, grow shoots. The two uppermost should be carefully tied up to the stakes. The lowermost bud or any which may grow out of the head, should, after two leaves have been formed upon them, be pinched off above and beyond the two leaves. Upon these shoots and joints, little twigs or lateral branches will grow in the early part of summer. These must be removed by hand just above the first small leaf. The leaves at the junction of the laterals should be carefully preserved. This tends to ripen the branch into good sound bearing wood, for if these laterals were not removed, it would weaken the intended bearing wood the next season."

"In the fall of the fourth year there will be two branches upon each spur or thigh for bearing wood. One such would be enough, but two are trained, first, to have a spare one in case of accident or loss, and for a spur for the season following, and second, to leave sufficient wood and leaves upon the vine, so as not to restrain its growth too much. It is not desirable to have the bearing wood too rank which would be the case if the vine were trimmed too close during summer. There are also, both upon the head and thighs, small shoots with one bud each, which are left there so as to keep the joint alive for future use, and to prevent its closing by becoming gnarled over."

The next point is how to trim the vines during the winter and spring following. The rule is to cut the thriest and if possible the upper branch, down to from 5 to 8 buds or joints for the bows, and if the lower branch remain, to trim it down, leaving one bud or joint for spurs, and to cut all the remaining branches away, close to the thigh, not injuring, however, the bud, which may be upon the thigh itself or upon the head.

## HOW TO BEND THE BOWS.

"This requires much practice and skill, or else much damage will be done by breaking the branches. The bows should be formed before the buds swell, or else many of them will be stripped off by even a careful workman—the great point being to have them round as possible, and all breaks and sharp bends should be carefully avoided. Morning is the best time, because the vines then bend easy. In the afternoon they are dryer, and hence more apt to break. Taking the end of the vine in one hand and the part immediately following the thigh, in the other, and while passing the vine round with one hand, pressing it into form by following it out from joint to joint with the thumb of the other hand, and then tying the end with a willow or some soft substance, avoid tying too tight."

## ON TRIMMING GENERALLY.

This important labor, whether for young or old vines, should be done early—if possible before the first of March, at any rate before the sap begins to flow; (in Hancock county and farther south, it should be done early in February or before) because through late trimmings much sap is lost, and in consequence thereof the vine is apt to become sickly and decay." (As previously stated, the smooth bark vines such as Scuppernon, Muscadine, &c., &c., must be trimmed early in the fall, soon after the falling of the leaf.) "It would be well if our vintners would use all the pleasant days through the winter for this purpose; but trimming too early is not to be recommended." "Before trimming, it is proper to remove the earth from around the head, so as to expose, for 3 or 4 inches, the stem. This is necessary, so that the trimmer may, by examining the thickness of the stem, have a safe guide as to the quantity of bearing wood to be left to the vine. The surface roots growing annually out of the head, are now cut away, so as to leave the head nice and clean of weeds, sprouts and roots. It is improper to go down to the third joint on the stem below the head, and cutting off the roots."

As a general rule, vines having a tendency to generate much wood, as our American vines have—should be left with more bearing wood—and the better or heavier the soil, the greater quantity of wood the vines will bear. In light warm soils, the vines should be loaded lightly with bearing wood.

"Vines up to the sixth year should be trimmed close—old vines should be dealt with very gently. Then they may give little, but good wine. Frosted vines or such as have been injured by hail, or other accidents, must be trimmed back, so as to provide for new growth in every injured part."

"Vines intended for two bows must, of necessity, have two stakes about 2 feet apart, and such vines have two thighs. At the end of the thighs are the bows which were the chief bearing wood of the season previous. At the first joint above the thigh is the bearing wood, this was left to be trimmed down to 6 or 8 joints or buds, and to form from it the bow or chief bearing wood for the ensuing summer. Below the thighs there are generally two spurs left which should be trimmed down to one joint, or bud, so as to have an extra spur ready if, accidentally, it should be needed for renovating the vine with new bearing wood. There are also two ground shoots, one of these must be cut away, the other had better be trimmed down to 3 or 4 joints so as to have it ready in case either of the thighs should be broken off. Such a ground shoot should also be trained, wherever sound judgment prognosticates the probable future unfitness of existing thighs."

## ON SUMMER TRIMMING ESPECIALLY.

"This labor requires much skill, judgment and experience. Errors in winter trimming, may now be remedied

by an expert summer trimmer, by promoting, at the proper places, those shoots which the vine stands in need of. Errors in summer trimming are harder to remedy, for obvious reasons. Whoever, therefore, attempts trimming in summer should fully understand, for the two operations are intimately connected. In summer timing, the vine-dresser must have regard for the trim which is to follow the succeeding winter. One important point is to know *where*, that is, at what part of the vine to leave the shoot untrimmed, and which shoots to trim away. Some retain simply the thriest branches, regardless of the place they grow upon, which is a great error. If the bows are properly fastened to the stakes, the shoots *not* to be trimmed will stand immediately upon or near the stake. A shoot will also be retained upon each spur. For a vigorous vine three shoots may be left, two upon each of the bows and one upon each spur—also trim one out of the head, the object of the latter being to be prepared for renovating the thighs. Should there be grapes upon any of the shoots to be trimmed, then they should be so pinched off as to leave one leaf at least, if not two, beyond the outer grape. In fact, no shoot should be entirely broken off—one or two leaves should always be retained. To keep the vine in good bearing order, it is absolutely necessary so to trim or dress the vine in summer, as to enable the winter trimmer to renovate constantly, and to replace entirely the thighs every 4 to 6 years. No thigh should be older than five years. Hence the lowest shoots are retained upon the bows, and hence, too, one shoot is retained upon each of the spurs, these being intended for gradual renovation, while the ground shoots, are intended for entirely new thighs. When this labor is to be performed cannot be indicated by general rule. As soon as the shoots are 12 or 14 inches long, it is time to trim them, and dress and fasten them up; most generally the proper time is the latter part of May, or early in June."—[*Sandersville Georgian*.]

## TO BE CONTINUED.

## OVERSEERS' RULES.

The following rules were laid down by a good overseer in Jackson Parish, La., and published in the *Times*. Read them:

1. Before going to bed, I will think over what I have to do the next day, and note it down upon my slate, in order that it may be recollected on the morrow.
2. I shall rise early, and never let the negroes catch me in bed of a morning, but see that they are all put regularly to their work.
3. After rising I shall not idle about, but go directly at the business of my employer. I shall see that the negroes are at their work; that the horses have been fed, the cattle attended to, &c. If any of the negroes have been reported as sick, I shall at once see that proper medicine and attendance are given.
4. Wherever the negroes are working, I shall consider it my duty to be frequently with them, in order that I may see how they get along. I shall not content myself with doing this once a day, but I shall do so repeatedly, observing every time what they are doing and how they do it. I shall never permit them to do any work wrong if it takes the whole day to do it right.
5. *Negroes*—I shall see that the negroes are regularly fed, and that they keep themselves clean. Once a week at least, I shall go into each of their houses, and see that they have been swept out and cleaned. I shall examine their blankets, &c, and see that they have been well aired; that everything has been attended to which conduces to their comfort and happiness.
6. *Horses*.—I shall consider it my business to see that the horses are properly fed and rubbed; their stable is well littered. When harnessed and at work, I shall see



that their harness fits, and does not gall them, recollecting that these animals, though dumb, can feel as well as myself.

7. *Cattle*.—I shall daily see that the cattle have been penned, that they have good water to drink; and I shall at once see how I can best procure a pasture for them. I shall let the cattle minder know that he is watched and held responsible for these things.

8. *Milk Cows*.—I shall contrive to procure these the best pastures, if possible. I shall feed them night and morning, and shall so manage it as always to have something for them to eat when penned.

9. *Houses, Places, &c*.—I shall endeavor never to let these get out of order. The moment I discover any of them out of repair I shall have them attended to, never forgetting that "a stitch in time saves nine."

10. *Carts, Wagons, &c*.—I shall observe the same rules about these as about the horses, &c, and shall never put off attending them until I may want to use them, when I shall not have time to do so.

11. *Time*.—I will always recollect that my time is not my own, but my employer's, and I shall consider any neglect of his business, as so much unjustly taken out of his pocket.

12. *Visits*.—If any one calls to see me I shall entertain him politely; but I shall never forget to attend to business on that account. "Business first, and amusements afterwards" shall be my motto. If any of my friends are displeased at this rule, the sooner they cease to be friends the better.

**HEAVY WHEAT IN TEXAS**—The *Southern Cultivator* for July has been received, and as usual is full of interesting matter to Southern farmers.

This number in copying an article from the *Advocate* in relation to the weight of the wheat raised in this country, seems to express a doubt as to the correctness of our figures. This is not to be wondered at, as wheat weighing 60 lbs. to the bushel is called good in any part of the United States. We can assure the Editors of the *Cultivator*, however, that the merchants of this town have recently carefully measured specimens of this wheat from different farmers, in sealed half bushels, and have found it to weigh some as high as 70 and none less than 65 lbs. to the bushel. From 25 to 50 bushels to the acre was the yield, although the season has been unusually unfavorable.—*Texas Advocate*, July 18.

[Will the *Advocate* inform us whether the wheat was "struck" or "heaped," in measuring? If the former, Texas is certainly entitled to the palm for heavy wheat.—Eds.]

#### LANDSCAPE AESTHETICS, WITH RELATION to Rural Homes.

**EDITORS SOUTHERN CULTIVATOR**—A beautiful landscape involving Nature in its greatest sublimity, is the cynosure of an artists' dreams, and its truthful portraiture the ultimatum of his most exalted ambition. Hence the appreciating admirer of unadorned nature is, in all instances, impregnated, somewhat, with the genius that inspired the master limners in the creation of those works which perpetuate their mortality.

America, with its multifarious climate and territory, presents more landscape effects of an interesting character than any other quarter of the globe. France becomes voluble over the Rhine; its feudal reminiscences and vine clad slopes. America, with equal energy, ratiocimates of the romantic Hudson, guarded by the hovering spirits of departed Knickerbockers. The former made cheerful with the growing vintage, and historically reminiscent of *ye antique times* when lordly hiberns of Burgundy wines, sallied from impregnable castles, followed

by a numerous train of lusty vassals, all to put a lance betwixt a neighbor's ribs. Those peaceful hills bespotted with the vestiges of a bygone architecture—crumbled ruins, imposing façades, spacious halls that once resounded with boisterous mirth, echoed by broad jokes and the "wassail bowl," once resonant of clanging armor, clashing battle axes and the shrill neighing of excited war steeds, are amongst the beauties that emulate our transatlantic friends to prate so long and loudly of their inland water. The coat-buttons of a renowned warrior, who has shed his *azure* of clay, become invested with an extrinsic value exceeding many times their intrinsic worth. So with the beauty of the extolled Rhine. Panegyrised beyond reason, rapture exhibited, interest excited while viewing meaningless piles. Not beautiful from its landscape, but surpassingly so with the odor of historic associations as a medium of retrospection. We look not upon the Rhine as it is, but as it was.

Not so with the Hudson—although the *Rip Van Winkle* legends lend a charm that gilds somewhat the glow that sparkle on her waters, and disports fitfully over the hills whose feet she leaves. The magnificent, joyous Hudson, typical of that home beyond the tomb. Thy besom a vehicle of commerce; thy banks luxuriant of scenery, and to the husbandman's toil, a grateful reciprocant of thy pleasing fullness. Thou solace to saddened and disappointed hearts. Thou Mecca to which artists resort to worship, to be instructed in the great secrets of light and shadow, to witness the sombre tints, and deepening shades of the labyrinth, and the sunlight dancing on the velvet sward. Thou alembic, refining gross natures and exorcising that malevolence which embitters life's pilgrimage. Thou Jordan to the indwellers of cities. Man becomes old and passes away, but time to thee brings no senescence. Cosy cottages nestle in thy valleys, enshrouded by creeping vines, and embosomed by patriarchal trees. Happy they who have wrung from the nervous hand of speculation, dollars enough to retire amid scenes that exhume those latent feelings of love, which the perplexities of trade had banished into professional obscurity.

It was on the banks of the Hudson that Downing drank inspiration from nature's chalice, and perfected his taste for the art of landscape gardening. Nature admits of no conventionalities; she is trammelled by no formal rules; she exacts no geometry, and is only desecrated by the efforts of many professional gentlemen, whose skill scarce extends further than the use of their mattocks and theodolites.

The budding proclivity of the better informed for rural homes in this country should be fostered and developed by superior minds, lovers of nature, men whose ambitions aspire to nobler rewards than evanescent praise from the rabble, or of that other incentive, pecuniary emolument. Just think of majestic trees, educated like soldiers—drilled in platoons on a well shorn lawn, and then again scampering in true Indian file, down straight avenues; rimmed to a nicety: not one pendulous branch allowed to grace the vista. Out upon the vandals who mar our homes—empirics who war with God's exquisite works for gold!

All beauty becomes monotonous and falls upon our appreciation unless attended by profuse variety. Hence, in improving the exterior of our homes, all the condensing causes of beauty, in landscape effects, should be brought into requisition, amongst which may be enumerated valley, hill and slope. The chasm, with its apparently unfathomable and startling abyss; the rivulet that meanders quietly across the lawn, leaps the rocks beneath the shade of o'er-arching trees and finally melts away into the great bosom of a placid lake; the giant oak, with gaunt, wide spreading arms protecting lesser vegetation ensconced beneath its umbrage; graceful conifers swaying with the breeze that makes their foliage murmur; predeceous

branches, kissing the emerald turf; vistas down sinuous paths, terminating beyond the reach of vision; sequestered patches of lawn, wandering like a bayou, into the intricacies of surrounding trees, forming mirrors upon which their huge shadows are reflected; hillocks and mounds reposing, *perdu*, and breaking with invigorating freshness upon our admiration, at some sudden change in the scene. Such comprise but a tithe of the features essential to the production of picturesque landscape.

A home environed by such cheerful views—Nature in pristine loveliness—must exert a healthful and humanizing influence upon the participants, refining and purifying our crudities, rebuking our violent passions and suspending, for a time, the incubus of despondency, which past misdoings inflict upon us. To the youthful it engenders virtue; to the aged a quiet solace to smooth the asperities which beset declining years.

It matters not what a man's occupation or pleasures consist in; all, I have discovered, long for that *dolce far niente* derived from country homes; but few, however, have any adequate conception of the method by which their beautiful dreams may be realized. Their minds are haunted with images that float sweetly and soothingly through leisure hours; but, lacking practical appreciation, no tangible consequences result.

The conventional manner of improving rural residences has become so firmly affiliated upon the community, that the efforts of a few individuals are entirely ineffectual to extirpate prejudice, or substitute happier examples. Established precedents are so numerous, and professional artists so dogmatic in orthodox gardening, that nothing short of a revolution in the art of landscape making will denude the face of Nature of the excrescences, which latterly have become so fruitful. *The great principle of art is to hide art.*

For the information of the uninitiated we give an instance of professional operating, which will apply in the majority of cases.

"J. Fitzgammon Snobs," a three months fledgling from "chain dragging" and an architect's bureau, becomes pregnant with irrepressible greatness and aspiration for fame; impelled by inextinguishable ardor, he essays his genius in subduing and ameliorating the absurdities of nature in the surroundings of a gentleman's mansion. The proprietor, innocent of the mystic art, meekly becomes a victim, lured by the illustrious patronymic of the aforementioned "Snobs," together with a prodigal disbursement of technicalities quite beyond his erudition.

Now commences the subtleties of science in the elaborate use of drawing pencils. Parallelograms, angles, octagons, and circles, leap like magic from the skillful maneuvering of the recondite "J. Fitzgammon Snobs." The eccentric man reduces a mound to the most abject prostrateness; next in turn a valley is, by some engineering process, cunningly deprived of its undulation. Nature thus tutored, is rendered deferential and assumes a placid deportment. The view of a railroad is obstructed by a group of trees—very beautiful trees—but a view of the railroad is of paramount importance, and in vain we plead "woodman spare the trees;" "Snobs" wields his tomahawk and wealthy proprietor pays. The eye roams over the monotonous expanse, curiously interlarded with the science taught in works on geometry. The reader must not suppose there is no vegetation amid this pyrotechnic success. *Per contra* there is a long row of that charming tree—all the way from Nepal—at five dollars the plant—Yclept *Picklen's perriginatus*, as the beauty of the tree is mainly derived from its interesting name. *Picklen's perriginatus* is duplicated on conspicuous labels and suspended from every individual tree. A few more sclerotic subjects of a similar character, bushels of grass seed and loads of gravel completes the *tout ensemble*.

"J. Fitzgammon Snobs" renders his bill, the sum of which aggregates \$2500.

"Delightful view," says Snobs (prospect a juvenile sah-harra).

"Charming," replies proprietor.

"That circle," continues Fitzgammon, "performs the graceful curve of the parabola."

No reply—apparently in dubiety about that parabola.

"From the eminence upon which we are perched the eye drinks in the surrounding country," (including the railroad.)

Proprietor rolls his optics in the direction indicated, seemingly enraptured with the gaze.

"In the distance" continues Snobs, "the blue hills are seen blending with bluer skies."

Proprietor sighs.

"My dear sir, you are delighted. You can't consistently be otherwise. You are a true lover of nature; you are pleased; you appreciate my efforts; I read it in your approving smiles. I have assembled in your domain all the beauties of my coquetish profession. The effect, sir, is all that could be desired; expression, sir—ornate expression—harmonious design, individuality are skillfully and artistically consummated; an elysium wrenched from the grasp of barbarous, incongruous Nature."

"J. Fitzgammon Snobs," having delivered himself of his stereotyped exordium, extends his professional digits and therein clasps a check for \$2500.

Downing, conscious of the charlatanism in the shape of gardeners infesting our country, carved out for himself a path hitherto untrodden by any of his predecessors, or contemporaries. Hence, he was assailed by the malicious quacks, whose ignorance he exposed. His good taste, consonant to the laws of nature; his wonderful creative powers, eventually won the favorable opinion of educated people, from which time his abilities rapidly expanded into practical results, and not a few homes now luxuriate in the charming pictures of his exuberant fancy. On whom has his mantle been shed? A thousand mournful echoes sadly respond: On whom? In vain we listen; no name is articulated. On whom? on whom? is the sorrowing cadence to our inquiries. Vandalism is once more in the ascendant. "Heathen pagodas," flagrant like French *bijouterie*, engulfed by trees clipped to represent monsters, find numerous devotees to enshrine living monuments of uncultivated and mongrel proclivities. Study Nature, study Art, as developed by Titian, Corregio, Raphael, Angelo, and more recently Landseer, Vernet, Johnnet and Foster. Study Nature as it comes from the hands of the Creator, who now and then diffuses a modicum of his own spirit into mortal tenements. Visit the Falls of Niagara; the White Mountains; the Hudson; Lake George; the Potomac and a thousand other heaven-blessed localities and learn landscape gardening from the great designer of Paradise. C. REALES.

Columbia, S. C., Aug., 1857.

APPARATUS FOR SUGAR MANUFACTURE.—An English inventor has brought forward a new sugar pan, the improvement in which consists in introducing into the body of the vacuum pan a series of vertical tubes, through which steam is admitted to facilitate the evaporation and crystallization. The tubes are enclosed within a cylindrical casing, and between the sides of the pan a vacant space is left. This arrangement causes an upward current of the solution in the pan at the centre of the series of tubes, whilst a gentle descending current is produced between the cylinder and the pan, by which compound motion the contents in the pan are kept from burning.

## WATER PROOF CLOTHING FOR NEGROES.

As the Cotton picking season is approaching, we give another method of rendering negro clothing proof against dews and showers:

Take one pound of wheat bran and one ounce of glue, and boil them in three gallons of water in a tin vessel for half an hour. Now lift the vessel from the fire, and set aside for ten minutes; during this period the bran will fall to the bottom, leaving a clear liquor above, which is to be poured off, and the bran thrown away; one pound of bar soap cut to small pieces is to be dissolved in it. The liquor may be put on the fire in the tin pan, and stirred until all the soap is dissolved. In another vessel one pound of alum is dissolved in half a gallon of water; this is added to the soap-bran liquor while it is boiling, and all is well stirred; this forms the water-proofing liquor. It is used while cool. The textile fabric to be rendered water proof is immersed in it, and pressed between the hands until it is perfectly saturated. It is now wrung, to squeeze out as much of the free liquor as possible; then shaken or stretched, and hung up to dry in a warm room, or in a dry atmosphere out doors. When dry, the fabric or cloth, so treated will repel rain and moisture, but allow the air or perspiration to pass through it.

The alum, gluten, gelatine and soap unite together, and form an insoluble compound, which coats every fibre of the textile fabric, and when dry, repels water like the natural oil in the feathers of a duck. There are various substances which are soluble in water singly, but when combined form insoluble compounds, and *vice versa*. Alum, soap and gelatine are soluble in water singly, but form insoluble compounds when united chemically. Oil is insoluble in water singly, but combined with caustic soda or potash it forms a soluble soap. Such are some of the useful curiosities of chemistry—*Scientific American*.


## "TO GIVE A HORSE AN APPETITE."

EDITORS SOUTHERN CULTIVATOR—In the July number of the *Southern Cultivator*, "E. G. M." requests information as to "What will give a horse an appetite." Let him give the horse a teaspoonful of powdered Nux Vomica every night, mixed with his food, for three nights, and then omit giving the medicine for three nights. When, if the horse has not recovered his appetite the dose of a teaspoonful should be repeated for three nights, which will usually be found sufficient.

I have tested this in many cases, both with my own animals and those of friends, and have never known it to fail. Had I time I would detail some instances of its efficacy; but I have not, and, therefore, must leave it to him to test the medicine for himself, assuring him, however, that I have never known any other than beneficial results to follow its administration. Yours, &c., L.

Aiken, S. C., August, 1857.

AN AGRICULTURAL SOCIETY up in Vermont, offers the following premium:—A beautiful silk dress (the color and quality to be optional with the fair recipient) to the maker of the best loaf of bread—the competitors to be unmarried ladies, and the committee of judges to consist of bachelors and widowers. It is generally thought that bachelors in search of good house-keepers will be on hand at that agricultural fair.

 A great deal of discomfort arises from sensitiveness of what other people may say of you or your actions. Many unhappy persons seem to imagine that they are always in an amphitheatre, with the assembled world as spectators; whereas they are playing to empty benches all the while.

## LAWN GRASS FOR THE SOUTH.

EDITORS SOUTHERN CULTIVATOR—You will confer upon me a personal favor, and no doubt upon others of your readers, if you will give, in your paper, the information you have in relation to the best Lawn grass for the South, the mode of preparing the land, sowing seed, &c.

I have several acres old field, high and dry, with clay subsoil, in front of my house which I wish to set in grass of some sort suited to our climate. The only instance I know of complete success in our District in making a beautiful plot has been with the little white Clover. Most other grasses, you are aware, die out under our hot summer's sun. I have some objection, here, to the clover and would be glad to get a grass that I could rely upon for the purpose. The Orchard Grass succeeds with us under the shade, but not when exposed to the sun. It is, however, not very suitable for a lawn—it grows too high.

If you think the subject would be of interest to your readers I would be pleased to see an article in your journal which would give us your best information. It is very probable that it has already been treated of in your columns; but I have not access to any of the preceding volumes. Very respectfully, A. C. G.

Newberry, S. C., August, 1857..

The Lawn grasses of cool and humid England are little adapted to the hot and dry climate of the Southern States. Southern grown Blue Grass seed is, perhaps, the best single seed; but duly set, and mown, Bermuda makes as green a lawn as any Southern grass known to the writer. Will not some of our readers, long familiar with both annual and perennial grasses at the South give the public a few suggestions on this interesting subject?

L.

## COTTON CROP IN CHOCTAW COUNTY, MISS.

EDITORS SOUTHERN CULTIVATOR—We have recently had very cool nights for the season, which have caused our cotton to take almost a perfect stand-still, even where it had commenced growing previous to the cool nights. The average is about half leg high, some smaller and some larger. At the corresponding time last year there was cotton in this neighborhood from waist to shoulder high. There is but few blooms in the county and they will not be common in all parts of the field in less than ten days or two weeks. In short the prospect is gloomy for a cotton crop.

Corn looks well. Wheat and Oats are very good.

Yours truly, LOBL.  
Choctaw County, Miss. July, 1857.

BITTEN BY A SCORPIONS—While unpacking a cask of bananas in Boston a few days ago, a man named Meade was bitten on the finger by a scorpion concealed among the fruit. Remedies were promptly applied and it was thought the wound would not prove dangerous.—*Exch.*

Scorpions don't bite, they sting like a bee—and their sting is nearly as severe and dangerous as that of a honey bee. Scorpions are numerous in Texas, and their sting is scarcely noticed.—*Texas Advocate*.

LABOR AND EDUCATION.—A school has been opened at Whiteyville, Conn., to give young men a practical education. Connected with the school is a large factory, filled with machinery, for the manufacture of toys. This branch has been selected as it comprises the largest variety of trades. Each pupil will be required to devote five hours each day to the mechanical department, and to keep a day-book and ledger of his work and its results.

## YOUNG AMERICA CRUSHER.

EDITORS SOUTHERN CULTIVATOR—I have just received a letter from Mr. W. Henry Steel, of New Prospect, Miss., who says that he is a constant reader of your invaluable journal, and requests me to inform him through that medium, as to what sort of "running gear" and "house" he will need for the "Excelsior," or "Young America" Crusher, of which I gave notice in the July number of the *Cultivator*.

Permit me, therefore, to say to Mr. S., and all others who may wish to be informed on this subject, that no running gear is needed for "Young America" but a single tree, and no house but the canopy of heaven. He may build a house over it as not, just as he may prefer.

After he gets the one he has ordered, he can have it in operation in three hours, being only necessary to get two sills 8 feet long and 10 inches square, these to be let into the ground lengthwise, about 4 inches to hold them fast, and 3 feet apart, and across these let in two pieces of timber 3 feet long and 6 inches square; fasten them there by wedges, and fasten the feet of the Crusher on these with the bolts he gets with the mill; put on the shaft which is furnished him, and he is ready for crushing 12 to 15 bushels per hour with one mule. I refer Mr. Steel to the drawing of "Young America" to be found in the *Cultivator*. He will there see the whole of the mill in operation without any shelter. \$25 covers the whole expense.

Yours, &c., G. D. HARMON.

Utica, Miss., July, 1857.

## IRON HOOPS FOR BALING COTTON.

EDITORS SOUTHERN CULTIVATOR—Having noticed in the July number of the *Southern Cultivator* an article on the use of iron hoops for packing Cotton, I beg permission, as one interested in all agricultural innovations, to state, in a concise form, my ideas on the subject.

I have thought ever since the subject began to be mooted that hoops would be a good substitute for ropes. It is known by all that rope stretches a great deal, and the knot slips some, consequently the bale occupies more space than when in press, and is, therefore, more unwieldy. The hoops would not stretch and, of course, the bale would remain the same size. If it should be said by any one that the magnitude of the bale is no objection, then, if iron hoops are to be used, there is no necessity for running the press down so far, and the bale would be no larger than it would be the old way, after the ropes and knots had stretched; we would, therefore, save both team and machinery; besides, the bale would look much neater and would command a better price.

But let us examine the objections of "Dixit" to iron hoops. He says, "the cotton presses in our seaport towns will throw away the hoops, and make the planter pay for ropes, they not being prepared for that kind of business." There is no necessity to throw away the hoops, whether they remain on the bale until it arrives at the factory or not, but they could be returned, and used again and again—using every year the hoops of the preceding year; the farmer having to pay for hoops only a little more than the cost of returning, etc. "But they would be removed," *ipse dixit*, "because the people in our seaport towns are not prepared for this kind of business." Years ago, when cotton seed were picked, and with the fingers, the same objection could have been urged against gins; that is, it would require so much machinery that the people were not prepared for it. I conceive that that cannot be urged as a legitimate objection.

Let us bind over cotton as suits ourselves, and our seaport towns will accommodate their machinery to our cotton. The second objection that "Dixit" urges is, that the price of hoop iron would be greatly enhanced if it were to come into general use. He had in mind, I suppose, when

he made that objection, the principle of political economy that the higher the demand the higher the price; but it is generally forgotten when that argument is urged, that the greater the demand, the greater the supply. More attention will be turned toward it—more labor will be given it—better machinery will be invented—there can be a better division of labor, and, consequently, the article will be cheaper.

There is one other objection urged by "Dixit" which I conceive is equally futile. That is, that we should continue to use the rope, because it is a production of our own Southern States. The true patriot and political economist knows now that it is best to use the article that is the cheapest and suits him best, even though it be a foreign production; and if a certain home production is not worthy of support, let it fail, and then the labor engaged in that vocation will be turned to some other home production that can be used without a sacrifice. But in the present case the South would not lose any patronage; "our own Southern States" are rich in iron ore, that would be brought forward—our resources would be developed—it would cause capital to flow in among us—manufactories would spring up, and we would see that failing to patronize our rope makers, instead of being a curse, would be a blessing!

"QUI NOVIS REBUS STUDET."

## DITCHING SWAMPS AND PONDS---AGAIN.

EDITORS SOUTHERN CULTIVATOR—I see in the August number of the *Cultivator*, a gentleman writing over the signature of "Davy Crockett," in favor of reclaiming low lands, endeavoring to make an application of gators, toads and poetry, to disprove my objections against the same.

The reasons that I offered against reclaiming low lands, I learned in the school of experience—a school well calculated to impart light to the mind of "Crockett," and all of similar views and limited experience in the culture and ditching of low lands. He says, "I have had strange feelings to creep over me while standing in the Alligator's play-yard and looking upon the fine corn and cotton growing in the monster's hall, and blooming around his very throne—that was once shut in by deep waters and dark woods." I have had "strange feelings to creep over me," in crossing that pond during a drouth in summer, when all moisture had departed, and hardly a vestige of corn or cotton to be seen, and on the slightest agitation of its surface, there would then arise a fine dust, diffusing itself over me, every particle of which inflicting a wound more malignant than the bite of a red-bug. I want "Davy Crockett," when he feels like writing again about reclaiming high land, craw-fish ponds, and dispossessing gators and toads of their long cherished homes, "assigned to them by the God of Nature," to take his hoe and go into one of these ponds, that he gets so poetical on, now and then, and chop a couple of hours, some warm, sun-shiny day, when the dust is flying freely, and after grappling awhile with that itchy element, if he don't repudiate pond lands and renounce the practicability of reclaiming such hereafter, there is no truth in my experience.

I will close by saying, that "Crockett" will confer a favor upon the farmers of this section that have pond lands to manage, by shedding a few rays of light upon the best measures to adopt to stay the ravages of the bud-worm, that has too often succeeded in thwarting every effort of the farmer in securing a stand, and greatly diminishing in value our pond lands, and causing the farmer to realize about one-fifth of "Crockett's" seventy-five bushels of solid corn, when the seasons "happen to hit right" one time out of a hundred.

J. W. O.

Jefferson County, Ga., September, 1857.

## COTTON AND SUGAR CANE IN LOUISIANA.

EDITORS SOUTHERN CULTIVATOR—It has been raining here ever since the 21st of July, and some days in torrents, with the exception of some five or six days during the time. Cotton promised well generally, until this rainy spell, and I feel safe in saying that the cotton crop is injured fully one-third, if no more. We have the never failing indication of the cotton-caterpillar, which is the butterfly or cotton moth, and I am satisfied they will be here in abundance during the month of September; and, perhaps, by the last of the month the cotton will be destroyed by them; at all events, the injury will be serious—the crop reduced to one-half. Sugar Cane is fine, at least, the plant cane—the stubble was almost entirely destroyed by the cold of last winter. Corn crops are generally very good through this district of country.

Most respectfully, yours, R. S.  
Bayou Chicot, Louisiana, August, 1857.

## RICE, CORN AND CHINESE CANE.

EDITORS SOUTHERN CULTIVATOR—The Rice and Corn crops in the Ogechee district of our country, (Chatham,) are promising abundant harvests. The Chinese Sugar Cane exceeds our most sanguine expectations, so far—both as to quality and quantity of syrup; and all persons who have a good iron mill must succeed; and yet many who may experiment with the ordinary wooden mills will most probably make a failure, as the wooden rollers will not crush the cane thoroughly, without passing it through more than once, and that would be rather a tedious process. Respectfully, yours, T. R. T.

Savannah, Georgia, August, 1857.

## GOUT IN FOWLS—FROG OINTMENT.

EDITORS SOUTHERN CULTIVATOR—I see in one of your late numbers of the *Cultivator* an inquiry made by one of your lady readers as to what will cure the gout that is so prevalent among our fowls? I had a fine Braham rooster that had become almost helpless with this disease and I applied the following remedy, and, to my surprise, in a few weeks he had regained his former beauty and activity, and is now in apparent good health. The warts or scales, are entirely removed from his feet.

The recipe is as follows: Take one pound of lard, and seven common frogs, put them into the lard whole, and simmer until they are perfectly crisped, then drain off the dregs, add two table spoonfulls of strong lye soap, and one bottle of Perry Davis' Pain Killer, stir the whole well together, and then anoint the feet and legs of the diseased fowls from three to four times a week, letting them run at large with the other poultry.

I hope some of your readers will try this remedy, and see if it prove successful with them. Mine is the only case that has ever come under my observation. I invented and tried the experiment of my own accord, though I had previously learned that frog oil was good for diseases among animals. S. F. ADAIR.

Cass County, Georgia, August, 1857.

EXERCISE FOR WOMEN.—Working in the garden, with thick shoes, substantial mits, and a sun bonnet, rather than the present fashion, is a health-giving and beauty creating employment for women. Think of this, ye mothers and daughters. Riding on horseback is an exercise in which all women in the country, and as many as possible in the city, should be adepts, and if these two things are not more attended to among us than they have been, then the days in which American women will be regarded as peculiarly beautiful are waning.

## ALCOHOL AND BRANDY FROM THE Chinese Cane.

EDITORS SOUTHERN CULTIVATOR—I am aware that you take a great interest in the development of the capabilities of the new plant, the Sorgho, and, therefore, hasten to give you the results of a small experiment, I have made, as to its capability for making good alcohol, now so extensively consumed in the manufacture of camphene, spirit gas, and varnishes.

I obtained from Mr. H. S. Olcott (who, with myself, has taken great interest in the Sorgho, and is about to publish an extensive work upon its cultivation and uses,) a small quantity of its syrup—part of a sample sent to him by Mr. Peters, of Atlanta. It was made last year, and had been fermenting in a demijohn ever since, so that a large proportion of its finest flavor was gone. After duly fermenting and distilling the syrup, I have obtained not only first class marketable alcohol, but very good brandy, for which, imagining it to be French Cognac, one of our largest dealers offered me one dollar and a half per gallon; and I have no hesitation in saying that had the syrup been fresh, and in a fit state for the purpose, I could have made from it a brandy worth twice that sum.

Now that the matter of the alcoholic capabilities of the American plant are settled, it remains with the farmer to decide, whether he will sell his syrup, at a reduced figure, as syrup, or, by changing it into alcohol, which is produced at proof, gallon for gallon, get double the price.

Everything was against the production of even a passable spirit from the syrup I used. The quantity being small was against the fermentation, while the previous acidity tended to give a flavor to the brandy it would not otherwise have had; yet such was the result stated, gratifying, no doubt, to you as a friend of improvement, and encouraging to those who have gone into the culture of Sorgho, as an experiment.

Mr. Olcott has gone South, to the Louisville Fair, and takes with him a sample of the brandy and alcohol made, which you will probably see. Meanwhile, I am, dear sir, your obedient servant, JOHN W. REID.

New York, No. 11 Old Slip, August, 1857.

[We saw both the alcohol and brandy alluded to Mr. REID, and consider them excellent of their kind. See the new work of Mr. Olcott, for a great deal of valuable information on the Sorgho and its products.]

## ARKANSAS—RESOURCES AND DEVELOPMENTS.

An intelligent gentleman, settled in Arkansas when still a territory, and well acquainted with its history and resources, has furnished to the *Memphis Bulletin* a most interesting account of that growing and prosperous State. Beginning with the northeastern portion, he describes it as one of the best corn, grass, and stock-growing regions, in all the Southern country—though, owing to the want of market facilities, it has lately attracted but little attention. It was, also, particularly unfortunate in its early settlers—Ishmaels, of old, without means or love or civilized life, the wilderness is their home; they scorn the city and multitude; neither have they houses or lands; wherever night or chance overtakes them, they pitch their tents and herd their flocks; and when the railroad starts, they will start also, to go whither it cannot come, so strong is their love for semi-civilized life—so great their aversion to improvement of whatever kind.

Northwest Arkansas is mountainous, the river valleys narrow, rarely more than two or three hundred yards wide. The soil, however, is fertile. Admirably adapted to pasturage



and general tillage, it makes the most beautiful and productive farms in the southwest, where peace, and joy, and contentment dwell. On high land, too, or more properly the hills, are fertile and well watered fields, good for raising wheat and other small grains, as well as for general tillage and pasturage. This part of Arkansas has the advantage in health; its waters are clear, pure, and cool, and valuable minerals—marble, slate and lead—abound. White river and its forks water this whole region; made navigable, as they easily might be, they would soon develop the inexhaustible resources of this portion of the State. The cotton growing region of Arkansas is south of the base line.

It is true, cotton is raised as high up as Jacksonport, on White River, but the southern part of the State is justly considered as the region adapted to cotton. And for the production of this great staple the lands of the Mississippi, White, Arkansas, Ouachita, and Red Rivers, are not surpassed. Their richness and productiveness are too well known for me to attempt to say anything more in their favor. These streams are rendered navigable, in the spring of the year, by rains and the melting of the snows in the mountains above, and not until then the greatest part of the cotton goes to market. But in order that they may ship their cotton as soon as it is ready, they are building a railroad from Fulton (on Red River) to Gaines' Landing, (on the Mississippi.) And to remove a like difficulty, (to which the Arkansas river is subject,) they have been talking of a road from Little Rock to Napoleon, at the mouth of Arkansas.

The writer adds that there are a vast number of cotton lands in Arkansas not yet brought into cultivation. What is wanted more than anything else, at present time, is the enterprising and all-pervading spirit of the age, to infuse those inestimable virtues, industry and energy.

And in this connection, the writer alludes more particularly to the railroads already in progress, or in contemplation in Arkansas—the "Fulton and Gaines' Landing" road; Little Rock and Napoleon road; "Cairo and Fulton" "Memphis and Little Rock" road; "Iron Mountain" road, etc., the importance of all which to the sections through which they pass is incalculable. Enterprising men, also, are now at their head, whose character, if any evidence but their imperative necessity were needed, would be a sufficient guarantee of their speedy completion.

The growth of Arkansas, for a long time after it became a State even, was very slow; it is now, however, making ample amends for the dilatoriness of days happily gone by. The last two years, the wealth and population of many counties have nearly doubled. At one land office alone, that at Batesville, no less than two hundred and sixty thousand acres have been entered the last twelve months, and, for the most part, by industrious enterprising and permanent citizens. Other portions of the State, also, are settling up with equal rapidity. A few years, and Arkansas will be one of the wealthiest and most populous States of the Federal Union.

**How to Use Fruits.**—To derive from the employment of fruits and berries all that healthful and nutritive effect which belongs to their nature, we should,

- 1st. Use fruits that are ripe, fresh, perfect and raw.
- 2nd. They should be used in their natural state, without sugar, cream, milk, or any other item of food or drink.
- 3rd. Fruits have their best effect when used in the early part of the day; hence we do not advise their use at a later hour than the middle of the forenoon.

To derive more decided medicinal effect, fruits should be largely eaten soon after rising in the morning, and about midway between breakfast and dinner.

### MAKE YOUR OWN WINE.

**SURELY!** it is time for us to make our own wine. The government of Portugal has recently discovered a great fraud in the wine trade, and arrested large quantities of a drugged mixture in Oporto.

This compound had been manufactured in England, and, in a concentrated form, sent to Oporto, whence it was to be re-shipped again to England under the seal of the Portuguese authorities as "genuine Port Wine!" It proved to be a mixture of alcohol, syrup, logwood, iron, essence of tar and other equally fine constituents; the balance of the beverage, a little wine and a large quantity of water was to be added to it in Oporto.

About three thousand hogsheads of this "genuine Old Port" had already arrived in London, where it, undoubtedly, will gladden many a heart!

Does this need any comment?

Our soil and climate in the Southern States are so congenial to the Grape, that this beautiful fruit and profitable crop cannot be too highly recommended for general cultivation.

Foreign vine-dressers have tried to throw a mysterious veil over the cultivation of the grape. They, like all other illiterate persons, think themselves in possession of a great secret. The successful and profitable cultivation of the grape, however, is almost as plain and easy as the raising of corn and cotton, and any man of good common-sense can easily do it, though, of course, as in all other pursuits in life, greater skill will insure greater success. I do not believe that 2000 gallons can be raised to the acre; but let us come down to a sober calculation, and I would say that 400 gallons to the acre may, with a certainty, be calculated on as an average crop annually during ten years. Will not such a crop, at a dollar per gallon, pay the vine grower?

ROBERT NELSON.

*Fruitland Nursery, Augusta, Ga., Sept., 1857.*

### SAVING SWEET POTATOES.

**EDITORS SOUTHERN CULTIVATOR.**—I will give you my plan of putting up Sweet Potatoes, and I have not failed to save them well in winter, spring and summer. I commence to dig after the first frost kills the leaves; dig carefully and haul, so as to bruise them as little as possible. Commence your banks, make them in circles of 7, 8 or 9 feet in diameter, laying straw in the bed so as keep them from the dirt, and after the potatoes have been put in—say 50, 60 or 70 bushels—cover the bank over with straw so that the potatoes cannot be seen, then use corn stalks, in the place of boards or bark as a covering as thick as they can be placed up and down, so as not let any dirt into the straw; throw on your dirt three inches thick, leaving a small place for the air at top through the stalks, then cover them well with boards, so that they will not be leaked on, and you will have few if any rotten potatoes.

Respectfully,

DAVID.

*Burke County, Ga., August, 1857.*

[The implement alluded to by our correspondent in his private note, is probably "Knox's Horse Hoc." It may be ordered through Messrs. CARMICHAEL & BEAN of this city. Price \$8 or \$9—EDS.]

**HIGH PRICES FOR NEGROES.**—Dector Davis, auctioneer, of this city, sold three male servants at his auction room, on Saturday last for the very fine average of \$1,320. Neither of the three could be called No. 1, but ordinary farm hands. These sales are a fair indication of the estimate which is now placed on this species of property. The country people shall be regularly advised of the slave sales, no matter who may be displaced.—*The South Richmond.*

## OSIER WILLOW FOR COTTON BASKETS.

EDITORS SOUTHERN CULTIVATOR—I wish to know your opinion about the Osier Willow you have growing—whether it will do for making baskets for picking cotton in? Basket timber is very scarce in this county, and I would like to get something that I could raise for that purpose. Please let me hear from you.

Respectfully,

B. M. H.

Bastrop, Texas, August, 1857.

P. S.—Can the cuttings be sent per express?

[The Viminalis, Red Belgian and Purple Welsh Osiers all make excellent cotton baskets. They may be used without peeling. They will grow freely from cuttings almost anywhere, but moist land is the best. The cuttings can be sent you safely per express *via* New Orleans, in November.—Eds. So. CULT.]

## WHEAT GROWING IN ROTATION.

EDITORS SOUTHERN CULTIVATOR—In the press of other business, and the excitement of elections, I have got far behind in reading the *Cultivator*, and do not know what has been published and what not, but if you have not already given your opinions, I would be glad to see them in the *Cultivator*, on a system of Wheat raising that is getting to be very common in this region. I allude to the practice of growing Wheat successively on the same land three, four, and in some instances, six years. What surprises me very much is, that those who practice it, report, almost without exception, that the crop is better every year, even when they commenced on thin land. If these results continue, we shall certainly have a very respectable Wheat growing country *after a while*, as 20 bushels per acre is *common* this year—many claiming 25 to 30, and some 40 bushels. At this rate I can see no stopping point, unless this *continual cropping* makes the land *too rich* for Wheat, and we have to fall back on Corn to check its fertility!

Respectfully,

EAST TENNESSEE,

Loudon, Tenn., Aug. 1857.

Good cultivation often *increases* the fertility of land for a number of crops in succession; but as tillage really adds little or nothing to the soil, in time it unavoidably impoverishes it to a greater or less degree, unless either water, some animal by its droppings, or man, impart fertilizing atoms to the land under cultivation. We rejoice to see Wheat culture extending at the South. It will, we trust, inaugurate a wise system of rotation of crops—a practice too little thought of by Cotton, Corn and Sugar planters. The soils on which Wheat, Cotton, Sugar cane or Maize may be *best* grown in annual succession on the same field, are exceptions—not the rule, in good agriculture. Care must be had not to draw general principles from isolated and exceptional cases.

L.

SELLING BY WEIGHT.—The following table shows the weight of a bushel of produce as established by a law passed by the Legislature of the State of New York, April 16, 1857:

Indian Corn.....56 pounds	Rye.....56 pounds.
Wheat.....60 "	Flax seed.....55 "
Beans.....62 "	Barley.....48 "
Peas.....60 "	Buckwheat.....48 "
Clover seed.....60 "	Timothy seed..44 "
Potatoes.....60 "	Oats.....32 "

## REMARKABLE ENGLISH DEVELOPMENTS.

THE demand for cotton and the prospective if not present, inadequate supply of it, are, as our readers know, attracting a vast deal of attention in England. It is apparently very obvious to every intelligent Englishman, first, that it is not certain that the demand can be furnished without increased culture within countries wherein its growth is uncertain; and secondly, they know that it cannot be furnished within the United States, to the full demand, without additional labor.

These conclusions are evidently beginning to produce a moral reaction and *mora*! compromise among the far-sighted men of England. Tropical products, they are beginning to argue, (not exactly syllogistically but inferentially,) are essential to British welfare. They cannot be produced in abundance except by coerced labor; therefore, we must wink at the slave system in some form.

This is not exactly the form of the argument, but the reflections which now begin to have a hearing in England lead inevitably to this stout conclusion. Only one event is necessary to put it in form, and that is the inefficiency of the efforts now being made to stimulate the growth of cotton without the United States.

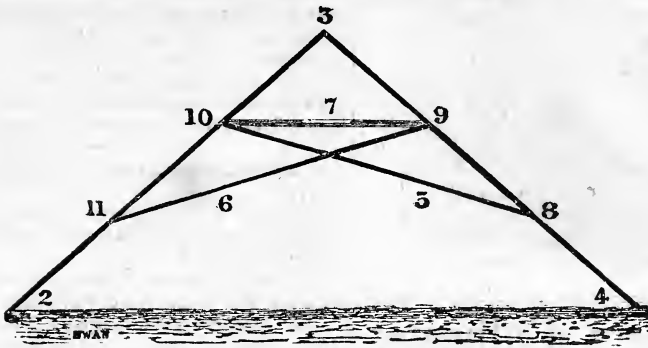
On the whole, the opinion of England is evidently undergoing a marked change on the subject of slavery; and it will surprise no one to see it inaugurated in some form by the people of that country within a few years. Their necessities demand it. The staple products of the civilized world are too closely interknit with slavery to allow a great manufacturing people to withstand the temptations which it offers.—*Mobile Tribune*.

REFINED COTTON SEED OIL.—A new article called "Refined Cotton Seed Oil," has been introduced into the market, for burning and machinery purpose. It is a handsome oil, and sells at \$1 to \$1.03 per gallon, bleached at \$1.10, and the crude article at 60 to 70 cents. Cotton makes an immense quantity of seed, the only use for which heretofore, has been as manure. There has been talk for several years past of crushing it for oil, but the general opinion has been that it did not contain oil enough to make a paying business. Recently two mills have been put into operation for this purpose, one at New Orleans, and the other at Providence. The public have not yet been informed whether the oil is good enough, or abundantly sufficient to make the crushing of this seed a profitable business. Some sanguine calculators at the South have, in times past, estimated that this seed would produce the planter, when it came to be used for oil, half as much as cotton itself.—*Boston Traveller*.

TOMATO PRESERVES.—Take the round yellow variety as soon as ripe; scald and peel; then to seven pounds of tomatoes add seven pounds of white sugar, and let them stand over night; take the tomatoes out of the sugar, and boil the syrup, removing the scum; put in the tomatoes, and boil gently fifteen or twenty minutes; remove the fruit again, and boil until the syrup thickens. On cooling, put the fruit into jars, pour the syrup over it, and add a few slices of lemon to each jar, and you will have something to please the taste of the most fastidious.

ANTIDOTE TO MOSQUITOES.—The following letter was addressed to a London paper:

"Sir: Allow me to hand you the following recipe as a certain preventive to attack of mosquitoes, black flies, &c.: glycerine 4 oz., oil of spearmint 2½ drachms, oil of turpentine 4 drachms. The face, neck, hands, in fact all parts exposed, to be rubbed with the mixture. This was given me by an eminent American physician previous to going into the State of Maine on a hunting expedition. I never knew it used without perfect success."



### DITCHING HILL SIDES—MR. HARDWICK'S LEVEL.

THE legs of the Level, 2, 3, and 3, 4, are eight feet long, and one inch thick, and three broad. The cross bars are the same width and thickness. All of these pieces are let into each other, and secured by wooden screws. The stride of the level from the leg 2 to the leg 4 is just twelve feet. The crossbars, 8, 10 and 9, 11, as you will see by measurement, go on the side pieces, or legs of the instrument, one-third from the crown. The light bar 7 represents the box into which the spirit level is placed, and should be only large enough to receive it, so that it may not rock in the box when carried, and is screwed on to the bars 8, 10, 9 and 11.

How to put the box on, so as to have the true level, is the question. Then observe the following rule:—Screw one end of box to crossbar 9 and 11, with a hand vice clamp; the other end to cross bar 8 and 10, and take the instrument to a slight hill side, and put the legs on the ground, as nearly the same level as your eyes dictate, and observe where the bubble in the tube stands; then reverse the legs, and place each exactly where the other stood, and the bubble in the tube will indicate whether the end held by the vice should be moved up or down. After

repeated shiftings of the feet and moving the end of the box, you may get the bubble to stand at the same place with the legs shifted; then you may be certain that you have the true level. Then the box should be made fast by a screw, as the first end was.

Now, to get a grade for cutting inclined ditches, I would recommend a more simple and easy method of getting the grade than that laid down in my first number to Mr. Howard. It is simply this: The true level having been obtained in the way above described, take your level and place it on the ground, moving one leg up or down until the bubble stands in the centre; then take a block as thick as you want your fall, say  $3\frac{1}{4}$  inches in 12 feet, and put it under one foot of the level; then raise one end of the spirit level in the box, until the bubble stands at the level point; then, with the point of a knife, make a mark on the end of the level at the top edge of the box, and then saw in with a tenon saw, say one inch, and slip in a piece of tin, long enough to reach the bottom of the saw cut and reach over the edge of the box—and you are prepared for ditching.

R. S. H.

[*Cotton Planter & Soil.*]

### WIRE FENCES AT THE WEST.

A correspondent of the *Tribune*, writing from Sterling, Illinois, says:

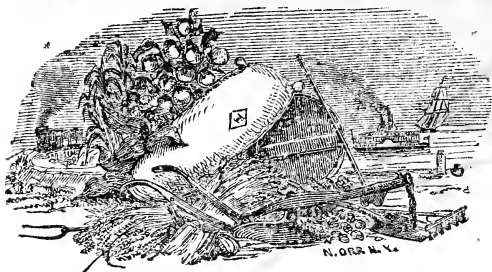
There have been, the past year, a great many miles of wire fence built in this country, and I have no doubt there will be double the amount built the coming season. There has been sold in the Chicago market alone, this season, over 500 tons of fence-wire, and in this town over 50 tons already, and twice this amount could have been sold if there were any in market. We use No. 9 wire, and set the posts 30 feet apart, and every 40 rods set an anchor post firmly braced; attach the wire to the anchor-post and run out the 40 rods, placing them on the ground close to the foot of the posts, so that they may not get tangled. Hitch the lower wire to the hind axletree of the wagon and start ahead. If the wire breaks, back up, twist together and start again, and keep doing so until you have broken it wherever there is a flaw or it is cracked, as it is better to break it now than have the cattle do it after it is in the fence; and then it is doubtful whether one team can pull a good quality of No 9 annealed wire apart, but it will stretch in 40 rods 4 or 5 feet, and contract when the team has done drawing. Now your wire is ready to put into the fence, and you raise it up to the desired height on the post and drive a staple to hold it there, but do not drive the staple quite up to the wire, as you want it to slide through pretty freely. When your staples are all driven and you come to the anchor-post, the best and most economical way of tightening is by means of a wooden pin. Bore a  $1\frac{1}{2}$  inch hole through

your post, and square said hole in a few inches. Make a pin with a square on one end, the other end to fit nearly, when driven into the hole in the post; put the rounded part of the pin in the post, attach your wire to it by means of a small gimblet-hole, and then with a wooden crank that you can use for all your fence, turn up said wire until it is not only tight but you may stretch it a foot or 18 inches; and when the square of the pin is right with the mortise in the post, drive the pin into the post and take off your crank and your wire is fast.

There are miles of such fence in our county where the wire is drawn just like a violin string, that has stood through the violent cold the past winter with not a wire broken.

The staples are usually made here with a simple machine by which any farmer can make 1,000 per hour out of the same wire, and they will drive into the hardest oak posts without a hole.

CEMENT FOR IRON.—The following recipe for cementing cracked iron, stoves, ware, etc., we can commend from our own experience: "Take iron turnings or borings one pound; sal-ammoniac, two ounces; flour of sulphur, one ounce. Rub well together in a mortar, and keep for use. When wanted, take one part of the above and twenty parts of iron borings, pounded and sifted, as before, mix in a mortar, and pour in water enough to give it the proper consistency. Apply it between the parts with a blunt caulking iron, or other convenient tool."—*Exchange.*



# The Southern Cultivator.

AUGUSTA, GA:

VOL. XV., NO. 10. OCTOBER, 1857.

## ANSWERS TO CORRESPONDENTS.

**HOGS**—L. H.—Write to our correspondent, Dr. M. W. PHILIPS, Edwards, Miss. We understand that he has fine samples of the Berkshire, Suffolk, Lincoln, Chester, Essex, &c., and think it probable he will dispose of some of them. He can ship to you *via* New Orleans and Galveston.

**ALCOHOL FROM SORGHO**.—W. K.—See communication of Mr. REID, in present number. It is probably now too late for your experiment, but save all your seed—plant a large field next year, and give it a fair trial. We can send you a copy of the new work of Mr. OLCOTT, for \$1, *pre-paid*, as soon as published. This work contains full directions for working up the Chinese Sugar Cane into all possible forms; and no one who plants this cane should be without it.

**LIGHTNING RODS**.—S.—Copper is said to be eight times a better conductor than iron; but when properly applied, the latter, has never failed of affording protection.

**CONCRETE WALLS**.—E. T.—Read carefully our articles in May and September numbers.

**MINER'S BEE-KEEPER'S MANUAL**.—G. S.—This work can be obtained from A. O. MOORE, 140 Fulton-street, New York City, for \$1, post-paid. We forwarded your order and money.

**FORMAN'S PLOW**—L. N. H.—We prefer the Washington Plow No. 2, (Rich's Iron Beam) and two good mules for breaking up land. Forman's and Warlick's plows have many good qualities, and admit of various changes of point and share, but neither of them are quite equal to Cooper's Patent. This last may be had from G. W. COOPER, Ogeechee, Scriven county, Ga., and the Washington Plow may be ordered from TREADWELL & JONES, Pearl street, New York.

**PORTABLE SAW MILLS**.—"Another Subscriber."—See letter of Mr. GARRETT, in present number.

**OSIER WILLOWS FOR COTTON BASKETS**.—C. F. L&G.—The price of the cuttings you desire, will be from \$5 to \$10 per thousand—see also, article in present number. We will publish the analysis as soon as we can procure a reliable one. We do not know of any remedy to prevent sand from rising in the bottom of wells, except filling it with loose rock.

**IMPHEE AND CHINESE CANE**.—B. R. JR.—We cannot at present, enlighten you as to the "comparative merits" of the Sorgho and Imphee. We are awaiting the experiments of Gov. HAMMOND, of South Carolina, with the latter, and shall publish the results as soon as obtained. We

have only one variety of the Imphee growing—the "*Vim-bis chu-a-pa*." We imported the seed direct from Erturt, in Germany. It was planted very late, but by "forcing" it a little, we shall probably be able to test the canes, and get a portion of the seed to ripen. Our readers may look for a full report on the Imphee in our next number.

## SOUTHERN AGRICULTURAL FAIRS.

THE Fair of the "Southern Central Agricultural Society," of Georgia, will be held at *Atlanta*, from the 20th to the 24th of October.

The South Carolina Society holds its Fair at *Columbia*, from the 10th to the 13th of November.

The Alabama State Society's Fair will be held at *Montgomery*, from the 27th to the 30th of October.

The Fair of the East Tennessee Society will be held at *Knoxville*, from the 20th to the 23d. of October; and that of West Tennessee, at *Jackson*, from the 27th to the 30th of the same month.

## AGRICULTURAL BOOK PUBLISHING.

THE old and highly esteemed firm of C. M. SAXTON & Co., of 149 Fulton street, New York, was recently dissolved by the withdrawal of the senior partner, C. M. SAXTON, Esq. Mr. S. was, for many years, a pioneer in the publication of Agricultural Books, and since the days of "SAXTON & MILES," has done his country the highest possible service, by the wide dissemination of standard works on Agricultural science and general rural economy. All his business operations have been conducted on the most liberal and enlightened scale,—he has made troops of warm personal friends, and carries with him, into his retirement, the best wishes of all who have ever known, or had business transactions with him.

To those who feel an interest in the advancement of Agricultural improvement, it is pleasant to know that the mantle of Mr. SAXTON has fallen on most worthy shoulders. The business will be continued at the old stand, and in the old spirit of enterprise and liberality, by A. O. MOORE, Esq., who has been actively associated with Mr. SAXTON for several years past, and who fully understands and will labor to supply the wants of reading and thinking American Agriculturists. Young, earnest, enthusiastic—feeling a deep interest in rural life, and being actively engaged in rural improvement—Mr. MOORE cannot fail of increasing the already high reputation of his establishment; and we commend him most cordially to the friendship and support of the farmers and planters of the South.

## "GRAPE GROWING AND WINE MAKING Made Easy."

THE attention of all our readers, who desire to participate in the pleasures and profits of Vineyard culture in the South, is called to the excellent treatise of A. DECARADECC, Esq., in the present number. Like very many others, we have heretofore been deterred from entering largely into the Culture of the Vine, by fear of the expense and difficulty attending it. We have been taught to look upon the production of good Wine in the South, as exceedingly problematical. No one doubted the capacity of our sunny clime for the growth of the grape; "but"—

the making of good wine afterwards—there lay the difficulty! Well, that difficulty has vanished—the mystery is solved—“granite laboratories” and deep cellars are perhaps, well enough in their way, but by no means indispensable; and hereafter, any man may plant his Vineyard with the same certainly of being able to make a largely paying crop of good wine, that he would feel of making bread from his corn or wheat field.

We have recently made two visits to the vineyards of Dr. McDONALD, and our correspondent, Mr. DECARADEUC. We have inquired minutely into their systems of planting and culture—we have examined their soils, locations and aspects—have eaten their grapes, and drank their wines, of various flavors and qualities—but all *pure*, invigorating, and vastly superior to the foreign trash for which we pay so dearly. We have, (so far as our brief time would permit,) familiarized ourselves with their processes for making these wines, and with all the advantages and disadvantages of the business: and the result is, a deliberate conviction that the *Field Culture of the Grape*, as practised by these gentlemen, is one of the *surest and most remunerative branches of rural industry*, and destined in a very few years to become of great and significant importance to the South. There are thousands of acres of uplands all around us, too poor for either cotton or corn, that will pay from \$200 to \$500 per acre in wine, the third or fourth year from planting, and which, if properly managed, may be made to clear expenses from the very outset. Much of this land can be purchased for a mere trifle, (five to ten dollars per acre) and if it will pay even two hundred dollars per acre in wine, after the third year, what other field crop now cultivated in the South can begin to compare with it? The experience of the vintners in Ohio, shows an average yield of four hundred gallons to the acre, and that we can safely count on equalling this, need not be doubted.

In fact, the testimony of both the gentlemen above alluded to, (who have had sixteen years experience,) as well as the recent successes of Mr. AXT, and many others, justifies us in claiming for the Culture of the Grape far more attention than it has ever yet received in the South, and of earnestly urging it upon the notice of our subscribers.

We can fully endorse, from our own knowledge, all the statements of Mr. DECARADEUC, and commend his article to the special attention of our readers. We do not claim *perfection* for his system—nor does Mr. C. himself—but we do contend that it is the cheapest, easiest, and surest way of profitably cultivating the Vine yet offered to the public.

The somewhat elaborate treatise on the culture of the grape, (commenced in our last number,) by an esteemed correspondent in Hancock county, Georgia, will also be found to contain many very valuable suggestions; and we shall take pleasure in often returning to this subject hereafter.

TO CORRESPONDENTS.—We have, as usual, many valuable articles left over, for which we will find room as soon as possible.

#### SUGAR FROM THE CHINESE CANE!

We were shown yesterday by Dr. Lee, Professor of Agricultural Chemistry in Franklin College, the result of some experiments of his with the Chinese Sugar Cane.

The syrup he made was light colored, thick and very sweet, and the finest specimen we have seen. Dr. Lee's chemical knowledge has enabled him to correct the error made by the chemists in Boston, and he has demonstrated that the saccharine matter of the Sorgho can be crystallized into cane sugar. The granular forms were distinctly seen and tasted in a specimen of the sugar we examined, which had been manufactured from the juices of cane growing on the day the experiment was made.

The observation and experience of hundreds who have cultivated small quantities of the Chinese Sugar Cane this year, abundantly prove that syrup of a superior quality can be made with but little trouble and expense, and Dr. Lee has demonstrated that sugar can also be manufactured from it—let the South then prepare for an extensive cultivation of the plant.—*Augusta Constitutionalist of Sept. 9th, 1857*

HAVING succeeded in our first attempt to make good cane-sugar from the juice of the *Sorghum Saccharatum*, we hope to be able in our next issue to give some reliable data in reference to the value of the Chinese and African canes for producing sugar and syrup in a large way. Ex-Gov. HAMMOND and Col. PETERS have, together, crops of these plants that promise to turn out some sixty thousand gallons of good syrup, or the equivalent in sugar. The *Cultivator* goes to press early (10th September) and our experiments and researches to ascertain the best ways and means of defecation, filtering and clarifying, which operations are indispensable to the production of first rate syrup and sugar, are as yet incomplete. In a few days we shall have fully tested Mr. WRAY's patented process, and some notions of our own on the subject. In the meantime, we commend Dr. EVANS' Sugar Maker's Manual, which may be had of Messrs. RICHARDS & SON, Booksellers in Augusta, to such as wish to study the art in question.

L.

#### LUSCIOUS GRAPES.

HENRY LYONS, Esq., of Columbia, S. C., will accept our thanks for samples of each of the following varieties of foreign Grapes:—Black Hamburg, Golden Classelas, White Frontignac, Purple Damascus, Muscat of Alexandria. These grapes were of surpassing richness and delicacy, and were grown under glass, but without any artificial heat.

We are also deeply indebted to our kind friends, Dr. McDONALD and A. DE CARADEUC, Esq., of Woodward, S. C., for very liberal supplies of Black July, Isabella, Catawba, Burgundy, Warren and Scuppernon Grapes, grown at their Vineyards near Woodward. A communication from Mr. DE CARADEUC may be found elsewhere in this number, which details a system of Grape Culture and Wine Making so simple and easy that every man who possesses land in the South should feel encouraged to “sit under his own vine” and partake of the fruit thereof.

NEW COTTON.—Our neighbor, Capt. T. W. E. BEAL, of Columbia, Co., sends us a sample of Upland Cotton of very superior fineness and great length of staple. It would, we think, rank “No. 1” anywhere, and if Capt. B's entire crop works up to this sample, it cannot fail to command a good price.



## OUR BOOK TABLE.

"*The Illustrated Family Gymnasium*," is a capital little work, just published. It is by R. T. TRALL, M. D., author of "*The Hydropathic Encyclopedia*," and other useful books on health, exercise, &c. Price \$1 25. Address: FOWLER & WELLS, 308 Broadway, New York City.

"*Russell's Magazine*," for September, is a very good number. The leading articles are:—The Nature and Claims of Paradox; Estcourt; Our Town in Summer; European Correspondence; A few thoughts in Southern Civilization, &c., &c. Terms: \$3 per year. Address—"Russell's Magazine," Charleston, S. C.

"*The Horticulturist*," for September contains.—Pear Culture; Rhododendrons; The American Plane-Tree; Legends of Trees; New Tea Rose; Garden Vegetables; Strawberries; The Atmosphere; Foreign Notices; Editor's Table; Calendar of Operations, &c., &c., and beautiful illustrations. Terms—\$2 per year (colored edition, \$5). Address: ROBERT PEARSALL SMITH, Philadelphia, Pa.

We should be pleased to notice many other works on our table, but time and space are lacking.

CHINESE PROLIFIC PEA.—The growth of this new plant continues to excite the wonder of everybody, and all who feel an interest in the subject are cordially invited to visit the plantation of Mr. JAS. P. FLEMING, on the Sand Hills, 4 miles from this city, and judge of its value for themselves. The luxuriance of the vine and vast quantity of blossoms and pods which it bears, almost surpasses belief, and more than justifies all that has been claimed for it heretofore.

AGRICULTURAL FAIRS, &c.—Do not forget that the Fair of our Georgia Society takes place at Atlanta, from the 20th to 24th of October.

We are under particular obligations to the Officers of the several State and County Societies for invitations to attend their exhibitions; and regret that distance and want of time will prevent us from availing ourselves of their kindness.

## CHINESE SUGAR CANE--SYRUP, &amp;c.

THE newspapers from all parts of the South are full of details of successful experiments in the making of syrup from this cane, and wonderful accounts of the enormous yield of seed, fodder, &c. We have not room for a tithe of these articles nor can we publish half of the private letters we have received on this subject during the past two months. The following summing up of the testimony (from the *Edgefield Advertiser*), seems to "tell the whole story," however, and we give place to it:

"If a judgment can be formed by any number of trials, and if hundreds of our best citizens have not been deceived in the experiments they have witnessed and made, we are certainly, at last possessed of the means of obtaining first-rate sugar, molasses and syrup, fifty per cent cheaper than these articles have ever been procured in the markets before. A supply of them can be manufactured by every farmer; and he will scarcely miss the labor expended therein from his other business. The secret is found. The children of the South may begin a grand jubilee in anticipation of sweet lips, sweet mouths, and molasses and sugar candy a plenty."

## Horticultural Department.

GRAPE GROWING AND WINE MAKING  
Made Easy.

EDITORS SOUTHERN CULTIVATOR—Agreeably to your request, I now hand you a few remarks about our method of planting out and taking care of a Vineyard. I say, "our method," for I claim it as peculiar to Dr. McDonald and myself; and we have adopted it, not through ignorance of more complicated and more costly methods, but, first, on account of its *simplicity* and *cheapness*, and then, having well succeeded, why should we alter our course? I do not pretend to say it is *the best*, nor do I wish to deter any so disposed to go to the expense of trenching their lands three feet in depth; but there are very many farmers who have not the means to incur such expenses, who wish to plant out an acre or two of vines, but are literally frightened out of it, not only by the mystery and difficulties which have, heretofore, been connected with the business, but, also, by fear of the money which is to come out of their pockets before they receive any returns. First, so many hundred dollars for trenching, and grubbing, and manuring; then so many more for vines; then so many more to learn how to stick the cuttings into the ground; and then so many more to learn how to prune; then to learn how to make the wine, how to keep it, etc.; and, to crown it all, so many thousands for a cellar. And, if it so happens, he is able and willing to stand all this, a hundred to one, he is frightened half out of his senses, and gives up in despair of ever being able to unravel the mystery, and master the awful science of Wine making, especially if he happens to hear of "granite laboratories" being built for the express purpose of imparting instruction for a remuneration!

## PREPARATION OF THE LAND.

I prefer new land,—such as would bring from four to six bushels of corn to the acre; select, if possible, a piece on easterly, southeasterly, or northeasterly exposure, and on a hill side, if you have such; if you have not, level land will do, provided it be not too retentive of moisture. Sandy soil is the best, although dry clay hill sides will answer very well. Clear the land and break it up with plows, as for corn; but all trees must, of course, be cut down and removed. Now get a parcel of small stakes, from three to four feet long, and proceed to mark out the rows; if the land be level let the rows be straight; but if on a hill side, lay them off horizontally, or level without regard to straightness; this is in order to prevent the washing away of the soil, (see one of the late numbers of the *Cultivator* for a simple leveling instrument.) I make my rows eight or nine feet apart. I prefer that distance on account of driving carts between to haul stakes, or manure, when it becomes necessary, or in vintage time. Having staked off the rows to your satisfaction, proceed to open the trenches or ditches; let them be about two feet wide, and from fourteen to eighteen inches deep; large plows, followed by long shovels, will very quickly do the work in sandy soil. The next thing is to plant; this can be done, in our Southern climate, from the middle of November to the end of March. I prefer rooted plants; others give the preference to cuttings; the first will save you one year, and you can plant them deeper, which is a great object. Make yourself a wooden compass, with an opening of four feet six inches at the points, and mark out the distance for your vines in the bottom of the trenches; drop the vines in their places, and proceed to plant them. Two men, with short-handled hoes, will plant a great many in a day; one deepens the hole to let

the roots go some inches deeper than the bottom of the ditch; the other places the vine upright and holds it until the first has put earth around it. If you have other hands let them follow with hoes and refill the trench, so that the top eye of the vine will be about on a level with the surface. Put a short stake to each vine, to mark its place. There is nothing more to do until the spring grass will call your plows and hoes into use; then work them as you would corn or cotton. You may plant two rows of corn or peas between the rows, and they will not interfere with the vines in the least.

#### FIRST PRUNING.

In the winter, at any time between the 1st of December and the 15th of March, take a sharp knife, remove every branch except one, and cut that down above the second or third eye of the last growth; break the land with a half-shovel plow as for corn, passing the nearest furrow about twelve inches from the vines. Give them a stake about four feet long; they will, in the spring, shoot out many suckers, and put out eyes where they have no business; cut out the suckers with a long handled chisel, and rub off all the eyes excepting the two or three you left in pruning; these, as they grow up, should be fastened to the stakes, with bits of soft string, bark, or any thing else you may have at hand. Keep the land cultivated with plow and hoe, and plant peas between.

#### SECOND PRUNING.

The second winter's pruning is a repetition of the first, but you must replace the small stakes by good lasting wood, from six to eight feet long. There will be some fruit. The summer's work is the same as above.

#### THIRD PRUNING.

The third winter's pruning is different: remove all branches or canes, save the two strongest; of these, cut the highest about eighteen inches long, and the other about three inches—the longest is intended for fruit; the latter, which is called "spur," is to make wood for next year. Towards spring, bend this long branch *horizontally*, and fasten the end of it strongly to a short stake, placed at a sufficient distance. In the West this cane is made to form a complete circle by fastening the end of it to the foot of the vine; this is called "arching." The object of arching is to moderate and regulate the flow of the sap, in order that it may fill all the eyes on the cane, for if the cane were left perpendicular, the sap would pass the lowest eyes, and rush upwards into the top. But, in my opinion, arching overdoes the business, and the sap, whose tendency is always upwards, will most generally stop at the eyes on the upper part of the arch, and develop them strongly; and those below will put out very weakly, or not at all. While, when the cane is laid *horizontally*, they all get their share much more equally divided. The vine should also be strongly fastened to the large stake. All who plant vines must plant out Osier Willow, whose twigs are superior to any others for tying, although I have made use of the young twigs of Black Gum, or of the Wild Willow, and of the bark of young Hickory.

During this summer, the vines will throw out strong branches, which must be fastened to the stakes as they grow, until they reach the top, when they may be left to hang over. Plow and hoe as usual; plow deep in winter and in summer make use of a scraper. After this, the winter pruning is always, more or less, a repetition of this last; one spur, and one or two bearing canes, according to the strength of the vine. In pruning let the cut be clean and close, leaving no small ends of dead wood, which will surely injure the old stem. Among old vines, a small-toothed butcher-saw will greatly assist the operation.

I do not approve of summer pruning; vines and fruit

require all the shelter they can muster to preserve them from our burning sun. Persons engaged in the grape culture should not lose sight of the object of pruning; it is to moderate and equalize the production of fruit, thereby improving its quality, and sparing the health and life of the vine. We are often told that this or that person has a vine, which is never pruned, climbs to the summit of high trees, bears abundantly, is very old, etc. A single vine is very different from twelve hundred to the acre!—and in many parts of Italy, where they have adopted the tree culture, the quality of the wine, which formerly ranked high, has completely been destroyed. I never wish to see my vines average more than from twelve to fifteen bunches each. QUALITY is better than QUANTITY.

The Catawba seems to have usurped the most prominent place among the natives. At the West it is by far the greatest favorite; perhaps, there others do not succeed as well. At the South, most persons are following in the wake of our Western brethren, and have taken it for granted that none others are worth cultivating, and condemn without a trial, or even without knowing them. The Catawba is certainly a beautiful looking grape, and a great bearer; but its honied and wild musky flavor, (which is unfortunately too strongly retained in the wine,) is a very serious objection for a palate accustomed to a more delicate fruit or beverage. The "bouquet," or perfume, of wine is a precious quality, but this has "too much of the good thing."

Foreign grapes must be discarded for wine making. After a fair trial, we, like many others, have come to the conclusion that they cannot stand our climate.

Of all the natives that have come within my reach, I give a decided preference to the Warren and the Isabella, both great bearers, but, like the Catawba, subject to the rot. The former makes a delicate wine of the color of Madeira, but not so strong; the latter, a light beautiful colored Claret, very similar to Bordeaux wines. I, also, like what we here call the Burgundy and Black July, (both misnamed,)—the first being the best table grape we have in this country, and making a delightful Madeira colored wine; the Black July makes a very dark, rich, red wine, not unlike Port. These two vines are not great bearers, but their fruit does not rot.

#### MAKING WINE.

My process for making wine is different from that followed in the West and in Georgia. The grapes being gathered, and all unsound or green berries removed, they are thrown into large tubs, or half barrels, and thoroughly crushed with the hand; the contents are then emptied into large vats, (hogsheads,) which are filled to within fourteen inches of the top; cover these with homespun and boards, to keep out gnats and flies. In a very short time fermentation commences; the mass swells and rises to the top, and should be pressed down, with a wooden paddle, two or three times per day. The next morning the clear juice is drawn from a facet, near the bottom, and poured into a barrel; when no more juice comes out, the mass in the vat is then carried to the press and what liquid remains in it is squeezed out; this is usually very thick, and is put into another barrel, as it is of inferior quality. Be sure that your barrels are filled to within three inches of the bung; less than that would leave too much air in contact with the wine, and would cause it to sour; more than that would cause it to overflow in the fermentation which for a few days will be very brisk; when this has subsided, fill the barrels to one inch of the bung, with wine reserved for that purpose, and close the bungs tightly. Be very careful that the barrel, tubs, vats, etc., be all perfectly clean and sweet, as the slightest degree of uncleanness would be fatal to the wine.

There now remains nothing to do until the next winter, when the wine is drawn into other barrels in order to clari-

fy it. The dark Claret is allowed to ferment on the skins for four or five days, in order to extract all the color; it is then treated as the others.

Another item, believed by many to be positively indispensable, and the cost of which is very considerable, is a cellar. Till now our wine-cellar has been but very slight board-houses on the surface, and we have lost no wine from acidity, except where we could trace it to leakage, or some other cause. And in order still more to cheapen and simplify the business, and remove all mystery from it, I have taught my negroes to go through the entire process, from the planting and pruning to the bottling of the wine. They are fully as intelligent as the peasantry of Europe, and much more to be depended upon. Here we have another decided advantage over the Western folks, who are dependent upon the caprices of foreign laborers, and many are the airs they put on when they come to this country!

By following the above directions, which I have endeavored to give in such a manner as to be within the understanding of all, and making use of a little judgment in modifying them according to circumstances, the most inexperienced farmer can set himself out a vineyard, and skill will come with experience. I wish to see as many as possible engage in the business, as the more we are, the better it will be for all, and centuries will elapse before it ceases to pay. We hope, ere long, to see a Southern Society of Wine Growers, with its center at Augusta, offering to the world pure and luscious wines, of all hues and of all flavors.

I should state that Dr. McDonnald's mode of planting vines is more simple than mine. He makes no ditches, but only holes, about sixteen inches in diameter and eighteen deep, and plants the cuttings in these. His vines are remarkably fine, as all who see them can testify. Ditches require more labor at first, but then there is the advantage of having that part of your land broken which the plow cannot afterwards reach.

A. C.

Woodward, S. C., September, 1837.

#### PLANTING ORCHARDS---SPECIAL DIRECTIONS.

The season for planting orchards is now approaching, and though it may to some persons seem a very easy matter, still, others may perhaps be benefitted by a few remarks.

It is a very prevailing opinion that poor, worn-out land, unfit for any other crop, is quite good enough for fruit trees. This may be true to some extent, provided the spot is properly situated, and can be thoroughly prepared.

The situation should always, if possible, be dry, elevated and fully exposed to all winds; a very gentle slope being always preferable to a dead level. A good loam, or mixture of clay and sand is suitable for most kinds of fruit, and if interspersed with some small rocks or slate, and containing a little lime, so much the better.

Good fruit is not merely a luxury, but it is the greatest, the most delightful and wholesome luxury with which Providence has blessed mankind. But we cannot expect fully to enjoy these luxuries without labor and skill; and the more care we bestow on our Orchards, the better they will repay us.

The first step towards it is, therefore, to prepare the soil properly and thoroughly, and the best way of doing it is by subsoiling the whole ground, intended for an orchard, 18 or 20 inches deep. Should this, however, require more work than conveniently could be devoted, I would propose to mark out the rows for the trees at the proper distance, and with a good turning plow followed by a subsoil plow or bull-tongue, to work the rows, in which the trees are to be planted, at least four feet wide, and as deep-

ly as it can be done. This will greatly facilitate the subsequent digging of the holes, and though not so efficient as a thorough subsoiling of the whole ground, will be found very beneficial.

Next procure young, thrifty trees, from a reliable nursery, and in preference from those which have a soil and climate as similar as possible to that in which the trees are intended to grow.

Every person is, of course, desirous of having his orchard come into bearing, and, therefore, the error is often committed of planting large trees. I call it an error, for the main secret to insure the prosperity of an orchard is, to have the soil well prepared, and trees properly cultivated and attended to.

It is a fact well known to all distinguished Orchardists that "maiden trees," (that is, trees of one or two years of age, without a head) are by far the most preferable ones; this principle is now generally admitted to be as correct as the deep working of the soil (a few years ago even so utterly ridiculed,) is now considered to be the true basis for all improvements in farming and planting.

Many persons may think it absurd to speak of manuring trees; but rely upon it, first rate and luscious fruit can never be expected from starved trees; if we do not treat our trees properly, they will be sure to disappoint us; therefore, unless the soil be very good, which is seldom the case on elevated spots, the trees will need some manure in the holes, previously to being planted. Most horticultural works say: "do not apply any animal manure to the trees; use leaf-mould." This is very much the same principle as feeding a horse on fodder, without allowing him any corn. My experience is different; I have very little use for leaf mould, except as a constituent in compost. I never plant a fruit tree without giving it two or three shovelful of rich animal manure, and I have always seen the most beneficial results. The manure should be put at the bottom of the hole, and thoroughly incorporated with the soil before the tree is planted.

Should it happen, on the arrival of the trees, that they are in a very dry condition, bury them completely, top and all, in moist sandy soil for 3 or 4 days, after which they will look plump and fresh again: plant them as usual, and prune them very severely. In fact, in planting a tree, it never can be pruned too severely, the more the better, even if pruned back to the very naked stem, and even that cut down to two feet above ground. The best time for planting an orchard in the South is as early in the autumn as possible after the first killing frost, say in November and December. During our mild winters the roots will then have time to become established, and the tree will be ready to start when spring sets in.

Persons are often careless in scattering the trees around over the ground while they are digging the holes. This habit is very injurious to the trees, for their rootlets are very apt to dry up when exposed, even for a short time, to dry winds or frost; it is, therefore, a good plan to keep the roots covered up in some way till the very moment when they are to be planted.

In most cases too much distance is allowed between the trees for our Southern climate. Fifteen feet is sufficient for Peaches, Apples and Standard Pears; ten feet will answer for Dwarf Pears, for it is important that they should shade the ground as soon as possible.

The frequent stirring and cultivating the soil in an orchard, is a matter of great importance and benefit to the young trees. Nobody can expect vigorous and productive trees, without working the soil between them. Crops of small grain, however, corn and grass, should never be sowed in an orchard; while such crops as shade the ground should be cultivated, at least until the trees are coming into bearing. Such crops as water-melons, nut-melons, Irish potatoes, sweet potatoes, peas, turnips,

and others of a similar character, may be raised with great advantage; not, however, on the land-butcher system, to rob the soil of its last particle of strength; they should be manured and cultivated in such a way as to benefit the trees.

*Mulching*, or covering the ground for several feet around each tree, will be found to be of great advantage to the trees, not only preventing weeds from exhausting the soil, but keeping the ground cool and moist. Any kind of coarse litter, pine straw, or even saw-dust, will answer.

In conclusion, I would say a few words in regard to orders sent to a nursery. The selling season in a nursery is a very busy time; in fact, none but a nurseryman can imagine how much work there is to be done during that time. It is, therefore, very desirable that all orders should be written in such a way as to facilitate the filling of them. It is very common in most nurseries that orders which are written in a confused way, or mixed up with the contents of the letter, are laid aside and must give way for others that are distinct and plain. In making out an order the purchaser should make up his mind which varieties he wants, or if he leaves the selection to the nurseryman, merely state the number of trees. Such a list should never be mixed up with the contents of the accompanying letter, but noted on a separate piece of paper, and enclosed in the letter. It is then an easy matter for the proprietor of a nursery to hand such a list over to his foreman and have the order filled at once. It should also be mentioned in the order whether the purchaser wishes the articles sent by "Express," by "Freight train," or any other conveyance.

ROBERT NELSON.

*Fruitland, Augusta, Ga., Sept., 1857.*

#### PROTECTION OF FRUIT TREES FROM FROST.

EDITORS SOUTHERN CULTIVATOR—In the *Cultivator* for August you state, in reply to some inquiries from "T. P. L.," of Alabama, that you do not know of any practicable method of protecting large orchards from the effects of late frost. I write this to say that I believe there is a perfectly practicable, easy and certain method of doing so. My belief is founded on actual experience of the success of the method the past spring. The experiment was purely accidental and on a very limited scale, yet not on that account the less satisfactory and conclusive.

In my orchard there was a peach tree with a broken limb—it may have been broken more than half off—the under side of the bark and wood remained unbroken. It did not bloom nor the buds swell until long after the other buds had blossomed and been killed. There was a full crop of fruit on it, growing to perfection. I am sorry to have to add that the cows got into the orchard and stripped the limb of everything; in consequence of which I am not able to speak as to the quality of the fruit that will be matured under such circumstances. I notice, however, that the broken part of the limb has healed up, so as at this time to be evidently passing as much sap as any place else. From this single incident a mind less deductive than Newton's may draw valuable conclusions. It gives us this plain, broad hint: that by retarding the flow of sap for two or three weeks we may keep the buds from swelling until all danger from late frost is past, and that the flow of sap may be thus retarded with perfect ease and certainty by judiciously removing the bark from a portion of the limb or tree.

Sections of the bark might be removed from the under side of each principal limb to go half round the limb, or more as experience shall prove sufficient; or sections of say an inch square of the bark might be taken from the body of the tree just below the limbs, all around the body, leaving about as much bark between the sections as is re-

moved. This will retard the flow of the sap indefinitely, according to the amount of bark removed, until the weather gets warm and all danger of the frost is past, when the increased warmth will cause a more vigorous flow of sap which will at once develop the bloom and the peach, and at the same time heal up the wounded places so rapidly, I have no doubt, as to mature the fruit as perfectly as if no wound had been made.

Another advantage of this method would be, that in case there came no killing frost every tree would produce part of its fruit as early as usual, and another part some time later; thus doubling the length of the fruit season of every tree.

I apprehend the actual damage done to the trees by this method would not be great, if it even amounted to an objection at all. I speak of peach trees. Every one knows how hardy and recuperative they are—how rapidly they recover from the most ruinous disasters. But as in case of fine and costly fruit trees this method of wounding might be more objectionable, I will suggest another method for the readers of the *Cultivator* to try. It is to wrap a cord around the tree as high up as can be done for the limbs; wrap the tree thus for two or three inches or more, and wrap it as tightly as the cord can be drawn so as to produce the greatest practicable amount of pressure around the tree—perhaps the effect might be increased by using a gum elastic or wet raw hide ligature; and if the tree should be old and the bark coarse, the hard outside bark might be removed, so as to give more full effect to the pressure. It seems to me that by some such means the flow of the sap to the buds might be materially retarded, until all danger of frost be past, and then the ligature might be removed and the sap let loose upon the extremities of the tree, when a most rapid and vigorous production of buds, blossoms and fruit would ensue.

W. DEHAMBURG.

*Ashley County, Ark., August, 1857.*

#### STRAWBERRIES—LETTER FROM MR. LONGWORTH.

EDITORS SOUTHERN CULTIVATOR—A writer in your paper says, "a pure staminate strawberry plant is never seen in its wild state." That "it is by hybridizing and high culture this change is produced." In their wild state pure staminate and pistillate abound. Hermaphrodites are scarce. If any wild staminate are wanting, they can be found abundant on the farm of one of our leading Horticulturists, Robert Buchanan. In my days of boyhood they annoyed me greatly when going in the meadows to gather fruit. Though we in that day were as wise as they still are in Europe, where they hold all the tribe are perfect in both male and female organs, and bear fruit. Your correspondent speaks of the Iowa as a seedling of the West. It is abundant in its wild state in Iowa, and was first brought here by David T. Disney. In that day it was valuable, for it was one of the best bearing hermaphrodites that we then had. Your correspondent does not rank the size of McAvoy's Superior, according to its character here. The average size of the fruit is from  $\frac{1}{4}$  to  $\frac{1}{2}$  larger, than the Pistillate with which he ranks it.

Yours truly,

N. LONGWORTH.

P. S.—Your correspondent has Boyden's Seedling and Wilson's Albany Seedling on trial. From one season's experience, and having seen it in fruit two seasons in the garden of Mr. Boyden, I rank his as very superior, and its size, bearing and quality such as to lead us to raise seedlings yearly. Wilson's I had in bearing this spring. From its bearing this year it appears to have the rare character of being perfect in both male and female organs, and to bear a full crop of fruit of good size.

*Cincinnati, Ohio, Aug., 1857.*

## CULTURE OF ROSES.

"How must I plant my Roses? what kind of manure must I give them? and how must I prune them?" These and similar questions are so frequently asked, that it may perhaps be acceptable to the ladies to see a few words about it.

The soil can never be too rich nor too deeply worked for Roses, and will, in nearly all cases, require a heavy manuring. The thorough preparation of the ground is, therefore, indispensable to insure perfect success. This can easily be done where a whole new bed is to be planted in roses. Spread a good layer of manure (cow manure in preference) and work it in by trenching the bed two feet deep, taking care to mix and thoroughly incorporate the manure with the soil; that done, the roses can be planted without any further trouble, and will do well.

It is, however, too often the case that roses are to be planted in beds already crowded with other shrubs, and under such circumstances it is often very difficult to make them thrive. The only way of insuring success is by digging a large hole for each rose, say three feet wide by twenty inches deep. In the bottom of this hole fill in four or five good shovelful of cow manure, mix it thoroughly with the soil, and on the top of it place a layer of three or four inches of earth, previous to planting the shrub, so that the manure may be within the reach of the roots, whenever they start. Then fill the balance of the soil around the plant, give it a bucket of water, in order to settle the earth, and the operation is done.

If the roses, are already growing, but weak, and wanting strength and new life, dig a trench around the bush about ten inches deep, and at the least one foot from the stem. At the bottom of this trench place some stimulating manure. Night soil or Poudrette is the most powerful, and two shovelful for each rose is sufficient. In want of these manures, hen manure will answer. Fill the trench up level with the surface, and water it plentifully that the strength of the manure may draw down to the roots. Where even this should be inconvenient, prepare a liquid manure made of guano or hen manure, five or six quarts dissolved in a barrel of rain water, as frequently described in the *Cultivator*. An application of such a watering will soon show a beneficial effect.

If the rose bush is old and unsightly, with long and straggling branches, cut the whole bush down to within four inches of the surface. This severe process ought to be done in January or February, and the result will be astonishing.

The pruning of a rose does not require much art nor skill. During the winter season cut down freely, and, wherever it suits, without disfiguring the form of the shrub, take the branches off near the ground, by which new strong sprouts will spring up again. All the branches may also be shortened, so as to give the bush a neat shape.

Whenever a rose has been blooming freely during the spring, it will rest for a while, and this is the time to give it a summer pruning, precisely in the same way, though not so severely.

ROBERT NELSON.

*Fruitland Nursery Augusta, Ga., Sept., 1857.*

## IRISH POTATOES---HOW TO RAISE AND How to Keep.

In the June number of the *American Cotton Planter and Soil of the South* we find a communication from Mobile, under the signature of "Au Revoir," in which the writer professes to have found out a secret in regard to the culture and keeping of Irish potatoes, which we trans-

far to our columns for the benefit of those engaged in their cultivation. The writer says:

I have found out a valuable secret in the cultivation of the Irish Potato in our section, worth knowing. The great trouble has been to preserve the Irish Potato any time after our warm weather commences. Well, I have ascertained from experiments that we must plant our Irish Potatoes in the early part of December and give them time to mature before our warm season commences. There is then no difficulty about keeping them until the January after. But, if planted in February or March, the warm weather kills the vines before the potato has sufficiently matured, which causes them to decay in the ground, if not immediately dug; and if not used soon after being taken from the ground they decay. The consequence is, we have potatoes here but a few weeks. Now I have no difficulty in keeping potatoes, planted in December, all summer. My potatoes were as large as your fist, the vines not having been once killed the whole winter. I have ascertained that the killing of the vine by frost is no serious injury to the crop, if planted properly.

I am this year planted a new variety, that I procured from a friend in Connecticut while visiting there last fall. This variety was produced by my friend from the seed of the potato. He had been planting them for three years, and had never seen a decayed one among them, and he does not usually commence using them until July or August, when other varieties are all gone or are to old for use. They are a superior variety in point of yield and flavor. They very much resemble the Mercer in the mealy character. The skin is of a purple and white color, very white meat, and they cook mealy and light.

TO KILL INSECTS ON FRUIT TREES.—M. Tessier has sent a communication to the Imperial Horticultural Society of Paris, stating that the ammoniacal water of gas works will destroy the insects which are so destructive to our fruits. In the neighborhood of cities, this is worth trial. The water of the gas works should be diluted with three-fourths its own quantity, and sprinkled over the leaves and branches. Trenches should be dug in proper directions, to receive the water as it falls, and this will destroy the insects below the surface of the ground.

REFINEMENT AND HORTICULTURE.—In allusion to the refining influence of Horticultural pursuits, a Kentucky correspondent says:

"There is something ennobling and refining in these pursuits that is not to be met with in the ordinary vocations of men, and I do not know what stronger proofs of the truth of this assertion are necessary than that it was the first art (that of 'dressing and keeping a garden') that our race learned. I believe that refinement and the science of Horticulture are twin sisters, and go hand in hand."

SPLITTING ROCKS WITHOUT BLASTING.—It is stated that French inventors have taken out a patent in England for splitting rocks by the generation of heat without causing an explosion. They use a substance composed of 100 parts of sulphur by weight, 100 of saltpetre, 50 of saw-dust, 50 of horse manure, and 10 of common salt. The saltpetre and common salt are dissolved in hot water, to which four parts of molasses are added, and the whole ingredients stirred until they are thoroughly incorporated together in one mass, which is then dried by a gentle heat in a room or by exposure to the sun, and is fit for use. It is tam, ed in the holes bored for blasting rock in the same manner as powder, and is ignited by a fusee. It does not cause an explosion upward like gunpowder, but generates a great heat, which splits the rock.



## TANNING LEATHER--THE QUICK PROCESS

At a recent meeting of the New York Mechanics' Institute, the subject of Tanning was called up for discussion by the chairman, (Professor MAPES,) after which he announced a new and centrifugal apparatus by which he had been enabled to force the tannic acid through every part of the raw hide by means of centrifugal force, exhibited in a rapidly revolving perforated cylinder resembling the sugar machines.

By the prevailing modes it requires about seventy days to tan completely the average of raw hides, while by the improved process, Professor Mapes said that he had succeeded in tanning a calf skin thoroughly in less than fifteen minutes. The process he used was to place the hide around inside of the cylinder, holding it there by means of the centrifugal force, resulting from a very high velocity, and then passing a stream of tan liquor into the centre, which was then carried by the centrifugal force against the hide, and passed through under the intense pressure, after which it escaped through the perforated cylinder into a surrounding vat, and was returned to perform the same journey over again until the tannic acid was exhausted.

It was stated that the process of tanning was almost instantaneous when the minutest particles of alum, gelatine and fibrin, were brought in contact with the tannic liquor. Mr. Schultz stated that he had experimented with the hydrostatic column in the tanning of calf skins, and found that the process produced the most positive results—the raw hide being thoroughly tanned in about fifteen minutes—the height of the column being about twenty-five feet.

Mr. Schultz also stated that the work of decomposition usually commenced in the raw hide immediately after being sweated and placed in the tan liquor, and that often in the months of July and August this process went on so rapidly that the entire interior of the hides would become a putrid pulp mass, like scab or pus, which could be readily removed by cutting through the thin tanned surface thus making a sack of the hide and destroying its commercial value. The new process would reduce the entire time required in working hides from seventy to about fifteen days, with the positive certainty that the process of decomposition would be checked before any serious injury could accrue.

The conversation was frequently interrupted by questions calling for specific information. In answer to one as to the cause of increase of weight in the tanned leather over the raw hide, the one being about double the weight of the other in certain instances, Professor Mapes stated that it was due to the absorption of the extractive matter of the tan bark, and was not due to the action of the tannic acid, which was the only tanning agent—the extractive matter having no such property.

Some very interesting facts were given about the peculiar form of the texture of the skins of different animals, and about the uses of tannic acid in the processes of vegetation. It was stated that the flavor of the strawberry existed only in the outer skin of the fruit, and that tannic acid was the principal agent necessary to produce flavor in all kinds of fruit.

EGYPTIAN WHEAT.—*Editors Southern Cultivator*—Will you, or some your subscribers, please inform me, through your journal, of the proper use of Egyptian Wheat, and what kind of soil suits it best? I have never seen anything said about it in the *Cultivator*. Information will greatly oblige yours, truly.

C. W. W.

Portcharatoulas Station, La., August, 1857.

## SIMPLE FOOD AND DRINK.

NEXT in importance to air and exercise, comes the selection of diet and drink. And in this matter the practical adoption of one common-sense maxim would do almost all that needs to be done. The maxim is this;—In cases where one of two courses involves danger and risk, and another is perfectly safe, always choose the path of safety.

We have seen that the great mass of this nation is fast hastening to disease and deterioration, and that individual misery and domestic unhappiness are widely increasing as the result. We have seen that owing to needless varieties, to stimulating food and drinks, and to the use of condiments, excess in loading the digestive organs is one great cause of this extensive suffering.

Now there is a rich variety and abundance of simple, healthful food and drinks that are fitted for the perfect development and nutrition of the body, and involve little liability to perversion and excess. And when all stimulating food, drinks, and condiments are relinquished, and a simple diet maintained, a healthful appetite returns, which is a safe guide to the proper amount to be taken, provided always that enough pure air and exercise are secured.

Moreover, I have found by my own experience and have learned from others, that after living for several months on simple food, there is an increased susceptibility of taste and a keener relish for the delicate flavors that simple food offers. Does any one remember the delicious relish of childhood for a bit of good bread? This same relish will again return when solicited aright. Let a person for several weeks try the experiment of drinking only water, eating nothing but bread and butter, potatoes, baked fruit and milk, and at the same time exercise abundantly in the fresh air, and if their experience corresponds with that of most I have known who have tried the experiment, they will say, "Never did food of the richest variety and composition furnish such an exquisite relish!"

The more a person will limit a meal to a few articles, and these of the simplest kind, the more will they regain the appetite and relish of early life.


Now the course here suggested is perfectly safe, is equally productive of enjoyment, and is in obedience to the laws of health, which are the laws of God. The common course pursued in this land of abundance and gormandizing is certainly one of risk and danger to the delicate and deteriorated constitutions of the adult and rising generation. Is not here the place to practice the Christian 'daily duty of self-denial?' And if the strong and healthy feel no need of it themselves, is there not a duty set forth for them in this inspired command, "We that are strong ought to bear with the infirmities of the weak, and not to please ourselves!"—*Catharine Beecher's Letters on Health*.

## FLEAS!--FLEAS!!!

EDITORS SOUTHERN CULTIVATOR—Fleas being very annoying and troublesome insects, and having tried various means to exterminate them from dogs and farm yards, without much effect, I would thank you, or some one of your numerous correspondents, to give a remedy that will effectually exterminate them from dogs and farm yards, without injuring the dogs and yards. I have tried spirits of turpentine and lard mixed, without any effect; walnut leaves, and, also, lard and oil of amber, in combination, with much apparent good. But still, I am inclined to believe that there is something, if we knew what it was, that would drive them from off of dogs and out of yards. I hope that you, or some one of your numerous readers, will give us the information so much desired.

A SUBSCRIBER.

Pine Forest Hill, Mississippi, August, 1857.

 A "Member" of the Newberry Agricultural Society makes the following suggestions in the "Mirror:"

#### AGRICULTURAL PREMIUMS, &c.

MR. EDITOR:—We would suggest to the members of the Society the propriety of changing the mode of rewarding the successful exhibitor at the annual fairs of the Society. The plan of the Society in distributing Cups, as premiums, to the successful competitor, might, we think, be changed much to the benefit of such members and to the Society at large. It is much easier to suggest a change than to propose a better plan. Whether the plan we would propose is better or not we would leave others to judge.

We would propose that instead of the usual premium of Cups, &c., that Agricultural Works, Journals, rare and valuable Seeds to the value of the premium, be distributed to each successful competitor. Let the member make choice of which he will receive, whether journals or seed, or both. The member entitled to a premium of \$5 would be entitled to receive several different journals as he might prefer, or he might receive part in rare seeds.

Were a plan of this kind adopted, it would accord more with the design of the Society, and promote a more general diffusion of Agricultural knowledge. The *silver cup* can impart no new ideas, nor will it answer for an implement of husbandry—better have a new plow or a corn sneller. In the plan proposed, the member will be able to read and reflect, and we might say to compare notes with others, and thus derive new ideas of cultivation and farm management. He would also be able to experiment and receive all advantage from the introduction of rare and valuable seeds.

When a member receives seed, he should be required to report at the next meeting of the Society as to the mode of cultivation, their value, &c. In this way the various seeds could be introduced, their value tested, and the farmer saved from a too frequent knowledge of the fact that he has been "*taken in and done for*" by designing seedsmen.

When a lady is the recipient of a premium, let her receive such plants and seeds of rare flowers as will enable her to adorn and beautify the homestead.

We have thus given a rough outline of the plan we would substitute instead of the one now pursued by the Society. It is hoped these thoughts will draw forth expressions of opinions from other members of the Society, and if the proposed plan meets with favor, let it be adopted.  
A MEMBER.

**KILLING THE WEEVIL, &c.**—The French papers contain the following statement, which may be important to some of our readers.

"Marshal Vaillant communicated to the Academy a paper by M. Doyere, on the curious and important fact that anæsthetics (the substances, such as ether, chloroform, &c., which are used to stupify patients previous to undergoing surgical operations) have the power of destroying all kinds of insects injurious to the preservation of corn. Experiments on a large scale were made at Algiers by order of the Minister of War; and M. Doyere states as the result, that two grammes of chloroform per metrical quintal of wheat are sufficient to destroy every insect in the silos (corn pits hermetically closed common both in Algeria and Italy) in the course of four or five days. Five grammes sulphuret of carbon will effect the same in twenty four hours. Not only the insects, but even the larvae inside the grains are completely exterminated; and the corn, after being shoveled four or five times in the open air, does not retain a trace of the operation. Cattle will eat the barley thus treated even while

still infected with the odor, and without any injurious effect. It is well known that corn lying in heaps produces a considerable development of caloric, to prevent the bad effects of which it must be shoveled two or three times a day. M. Doyere has remarked that corn treated with anæsthetics does not evince the same tendency; he is nevertheless of opinion that his experiments are not sufficient to establish this as positive fact, and, therefore, recommends that farther trials be made."

**BLIND STAGGERS IN HORSES.**—A friend in Terrell county, sends us the following remedy for blind staggers:

"Take a double handful of onions, mash them up, and with one quart of water boil down to a pint, squeeze the juice from them and strain it; when about milk warm drench your horse well. Bathe his head freely with strong camphor; then take an empty barrel, set it on end, and put about one peck of live coals—oak or cob—throw upon them some green pine tops, which will make a large smoke—hold your horse's head over the barrel and smoke him well—then, to a tough stick the size of a gun rod, tie a cotton or linen rag fast—dip this in water to soften it, and run it up his nostrils as far as it will go without injury—twist it around in the nostril, and a quantity of bloody matter will run out. After this, smoke his head in the manner above mentioned, a short time. You may repeat the above remedy next day, and if it does not cure in nine cases out of ten, I am badly deceived, if attended to in time.  
Yours,  
W. W."

**NEGLECT OF AGRICULTURE.**—Increased attention to agricultural pursuits is very generally recommended as a remedy for the stagnation in trade, so often complained of in different parts of the country. The *Boston Traveller* says:

The complaints of the present season are not caused so much by the deficiency of business as by the redundancy of traders, and the over supply of manufactured articles furnished by the improved machinery which has been brought into operation within a few years. These are altogether disproportionate to the agricultural products of the country.

We cannot look for any substantial and permanent reaction, till larger amounts of capital and a much greater number of energetic young men are withdrawn from other pursuits and concentrated upon agriculture.

The general depression in commerce and manufactures at the present time, and the active demand and high prices for almost all great agricultural staples, offers an excellent opportunity for the profitable transfer of a large amount of capital and labor to the cultivation of the soil.

**NEW YORK CHAMPAGNE.**—There are at the present time thirteen champagne manufacturing establishments in New York. They convert, says a New York paper, still wines into sparkling ones; for no process has yet been discovered for producing an artificial wine which possesses the flavor and other qualities of the product of the grape. These manufacturers use for their purpose a light French, and sometimes, if sparkling Hock is to be produced, a German wine.

The wine, after being prepared by precipitating all substances which would, when charged with carbonic acid, be deposited in the bottle, is subjected to a high pressure of carbonic acid by machinery, such as is used for the manufacture of soda water, and after being well agitated in contact with the gas, is bottled under pressure with a very ingenious machine.

**CORN AND HOGS.**—From carefully conducted experiments by different persons, it has been ascertained that one bushel of corn will make a little over 10½ pounds of pork—gross. Taking this result as a basis, the following deductions are made, which all our farmers would do well to lay by for convenient reference. That

When corn costs 12½ cents per bushel, pork costs 1 cent per pound.

When corn costs 17c. per bushel, pork costs 2 cents per pound.

When corn costs 25 cents per bushel, pork costs 3 cents per pound.

When corn costs 33 cents per bushel, pork costs 4 cents per pound.

When corn costs 50 cents per bushel, pork costs 5 cents per pound.

The following statements show what the farmer realizes for his corn when sold in the form of pork:

When pork sells for 3 cents per pound, it brings 25c per bushel in corn.

When pork sells for 4 cents per pound, it brings 33c per bushel in corn.

When pork sells for 5 cents per pound, it brings 45c per bushel in corn.

**CHEAP PAINT FOR HOUSES, &c.**—A correspondent of the *Ohio Farmer* gives an account of his method of making cheap paint, as follows:

I make a thin sizing of glue and flour, to give one coat. This applied, I next sift through a coarse strainer a quantity of water lime; this done, I next mix it with oil and white lead. This mixture I applied as the first coat upon the sizing. When sufficiently dry, a second coat was put on, of oil and lead. My last and finishing coat was with oil and zinc. A purer white, or a better coat of surface paint, it would be difficult to find. The main body of the house is 28 by 32 feet; the back kitchen is about 20 feet square, and one story high. The amount of material used was 4 lbs. glue, 80 cents; 3 lbs. flour, 8c; 75 lbs. white lead, \$7.50; 125 lbs. zinc, \$12.50; 6 1-2 gallons oil, \$7.31;—total amount of material, \$28.20.


I have been thus particular, for the purpose of showing the economy of using oil. If I had not first used the sizing the oil would have struck into the wood, without securing the wished for benefit; then the water lime and lead when dry, make a hard, solid surface, and becomes a complete preparation to receive the final finish of lead or zinc, as the choice may be; and which, in my opinion, when finished as painting should be, will prove far more durable than oil and lead applied directly to the surface.

**PLASTER.**—This is a stimulant to all soils; it acts more readily and perceptibly on those that have been well manured than upon those barren of animal matter. Its nature is to absorb both from the earth and air, and give to the growing plant. The use of plaster on land plowed only four inches deep, will be very apparent the first year, the second less so, and the third still less. The deepening by plowing two inches yearly, and spreading animal or other manures, will keep the plaster in action.—*Ohio Farmer*.

**GARDENING FOR CHILDREN.**—Children's gardens are now the fashion in Germany, and have been successfully introduced into London. A practical guide to the English Kitchen Garden has been issued by the "Council of Education," and a monthly journal was commenced in May last by Mr. and Mrs. Ronge, who have established an institution for the training of teachers, young ladies and nurses. Their form of education is introduced into the wealthy families in aristocratic quarters. Nothing could promise better both for youth and age.—*Horticulturist*.

**SUN-FLOWER CULTURE.**—Lieut. Maury has been recommending, in the *Rural New Yorker*, the culture of the sun flower, as a preventive of the fever and ague. He thinks that the broad, rich leaves of this plant might absorb from the air or soil, the poisonous elements which produce this disease. His recommendation is based on an experiment tried in 1856, at the National Observatory, Washington. The spot was a sickly one, fever and ague especially, prevailed. Last year he planted with sunflower seed, a belt of soil about forty-five feet wide, around the Observatory, and on the side towards the marsh, and about one hundred and fifty, or two hundred yards from the building; the plants grew finely. The ague prevailed all around; the people at the President's house were attacked, but the Observatory men escaped. This is worth thinking of, but as Lieut. M. states, this fact does not establish a theory.—*Ohio Farmer*.

**FODDER OR HAY CAPS.**—There is no time to be lost in procuring these indispensable articles. Any man who saves hay or fodder should have a lot of these extemporaneous shelters. Coarse cotton sheeting, a yard and a half wide, will answer a good purpose. Cut it square and fit with loops of short twine at the corners, and four plugs or sticks a foot long to fasten them on to the hay or fodder cocks, in case of a shower or storm. Then there is no hurrying or over-exertion to get a load of hay or fodder into the barn before the shower overtakes you.

 What a glorious thing is occupation for the human heart. Those who are always busy seldom yield themselves up to fancied or real sorrows. When grief sits down, folds its hands, and mournfully feeds upon its own tears, weaving the dim shadows that a little exertion might sweep away, into a funeral pall, the strong spirit is shorn of its might, and sorrow becomes our master. When troubles fall upon you dark and heavy, struggle not with the waves—wrestle not with the torrent; but seek by occupation to divert the dark waters that threaten to overwhelm you, into a thousand channels which the duties of life always present. Before you dream of it, those waters will fertilize the present, and give birth to fresh flowers that may brighten the future—flowers that will become pure and holy in the sunshine which penetrates to the path of duty, in spite of every obstacle. Grief is nothing but a selfish feeling, and most selfish is the man who yields himself to the indulgence of any passion which brings no joy to his fellow-creatures.

**FOR THE BITE OF A MAD DOG.**—A subscriber, in Canada, for whose personal respectability we can bear most cheerful testimony, sends us the following recipe for the bite of a mad dog, of the efficacy of which he speaks in strong terms, adding that "the patient will find it extremely difficult to eat these cakes without fluid to take with them, but under no circumstances should food or drink be taken at the time, or within six hours after, however thirsty the patient may be."

**Recipe for the Bite of a Mad Dog.**—Take oyster shells, burn to a lime, pulverize, and sift through a piece of gauze; take two heaped tablespoonsfuls of the sifted lime, and mix with eggs, to the consistency of batter or cream; fry this in a pan with a piece of fresh butter or some sweet oil.

This cake to be eaten in the morning, and nothing of food or drink to be taken for six hours afterwards.

Three such cakes as above to be eaten on three alternate mornings, for an adult; to be diminished for a child according to age.—*N. Y. Adv.*

**STEAM PLOW.**—The experiment of the steam plow is in a fair way of being tested. One was tried recently at Francisville, Indiana. The soil was quite wet, and altogether unfavorable for the trial, but the *Lafayette Courier* understands from a gentleman who was present that the practicability of the invention was satisfactorily demonstrated. A number of plows were attached, and the soil opened to the depth of eight or ten inches. From the experiments made, it was thought that two men could plow 20 acres a day with the steam plow.

**BURNING THE DEAD.**—The Paris Academy of Medicine has set the papers to writing and the people to thinking earnestly of the return to the practice of burning the dead. They say that in the summer time the Parisian hospitals are crowded with the victims of pestilence engendered by the foul air of the grave yards in the neighborhood. The vicinity of the cemeteries is a constant source of mortality. Their putrid emanations filling the air, and the poison they emit impregnating the water, are held chargeable for the many new and frightful diseases of the throat and lungs, which baffle all medical skill.

## Domestic Economy and Recipes.

**TO DRIVE AWAY RATS.**—Some years since a correspondent of the *Boston Cultivator* recommended potash for this purpose. The rats troubled him very much, so that he felt justified in resorting to extreme measures to effect their expulsion from his premises. He pounded up potash and strewed it around their holes, and rubbed some under the boards and on the sides where they come through. The next night he heard a squealing among them, which he supposed was from the caustic nature of the potash that got among their hair, or on their bare feet. They disappeared, and for a long time he was exempt from any further annoyance.

**TO MAKE PURE WINE OF APPLES.**—Take pure cider made from sound ripe apples as it runs from the press; put sixty pounds of common brown sugar into fifteen gallons of the cider, and let it dissolve; then put the mixture into a clean barrel, and fill the barrel up to within two gallons of being full with clean cider; put the cask into a cool place, leaving the bung out for 48 hours; then put in the bung, with a small vent until fermentation wholly ceases, and bung up tight; and in one year the wine will be fit for use. This wine requires no racking; the longer it stands upon the "lees" the better.

**A CHEAP PAINT.**—A correspondent of the *Country Gentleman* gives the following receipt:

"If any of your readers wish to use a very cheap and substantial paint, of a drab color without lustre, let them mix water-lime with skimmed milk, to a proper thickness to apply with a brush, and it is ready to use. It is too cheap almost to estimate, and any one can put it on who can use a paint brush. It will adhere well to wood, whether smooth or rough—to brick, stone or mortar, where oil paint has not been used, in which case it will cleave to some extent, and forms a very hard substance, as durable as the best oil paint."

**QUINCE AND APPLE JELLY.**—Cut small and core an equal weight of tart apples and quinces. Put the quinces in a preserving kettle, with water to cover them, and boil till soft; add the apples, still keep water to cover them, and boil till the whole is nearly a pulp. Put the whole into a jelly bag, and strain without pressing.

**WATERMELON PRESERVES.**—Cut a watermelon in two and take out the soft inside; then pare or scrape the green rind from the firm white portion of the melon, and cut it into such shapes as you choose. Put the soft part of the melon, with all its liquid, into a preserving kettle in which there are two teaspoonfuls of water, and let it boil for a few moments; strain it, and add three quarters of a pound of white sugar for each pound of melon you are to preserve; put it over the fire, and stir it until dissolved; then put in the melon, and boil until clear throughout; flavor with green ginger root or with lemon, adding the inside of a couple of lemons to the liquid when the soft part of the melon is boiled; when the melon is transparent take it up with a skimmer and spread it on flat dishes to cool. Let the syrup boil until thick; pour it into a pitcher to cool and settle. Put the preserves into jars; pour the syrup over, and seal next day.

## Advertisements.

See New Advertisements on Last Page.

### SOUTHERN PLANTERS!

Encourage your own Manufactures, which are now languishing for want of your support.

I TAKE this method of informing Planters that I am still manufacturing at Belleville Factory, Augusta, Georgia, a first rate article of NEGRO CLOTH, made of strong, double, well twisted cotton warp, and pure wool filling; which I warrant as a faithful article, and to wear longer than any Northern goods.

Being one of the pioneers in manufacturing in Georgia, I have had to struggle against a fierce competition from the Massachusetts manufacturers—for their skill could put a good face on an inferior article, which they could sell nominally cheaper than I could a faithful article. Hence, merchants as well as planters, refused to encourage Southern enterprise, because Northern goods were offered at a few cents per yard less. Overlooking the vast difference in the quality of the material used. Is not now the time for planters to encourage Southern manufactures, and make us independent of the North, especially when goods are offered at a reasonable price, and of a quality that will give satisfaction.

All orders will be filled in their turn, and forwarded as directed; on receipt of the goods, an order on your factor, or your note payable 1st of January, will be satisfactory. At the prices mentioned below, the goods will be delivered in Augusta and forwarded as directed.

Extra Heavy Twills.....42 cents, 30 inches wide.

Heavy Plain.....32 " 30 "

WOOL will be taken in exchange for goods, at 20 cents per lb, for unwashed, free of burrs; or 30 cents for clean washed—the wool to be delivered in Augusta. If there are burrs in it, the weight of burrs deducted. I will pay freight on the wool and deduct it when settling for it. It can be sent to S. H. Oliver, my agent at Augusta, and the goods will be forwarded promptly on receipt of the wool.

GEORGE SCHLEY.

Aug57—4t

### BRAHMIN CATTLE

I WISH to place a portion of my Herd of Grade Brahmin Cattle with a responsible Stock Breeder, of Texas, or Florida, on such terms as may be mutually satisfactory.

They are of large size, rapid growth, and for oxen in a hot climate they are superior to any other breed in the world.

Sept57—2t

RICHARD PETERS, Atlanta, Ga.

### VALUABLE FARM FOR SALE IN CHEROKEE Georgia.

THE subscriber wishing to get to retired situations offers his FARM for sale, situated on the Western and Atlantic R.R. at Catoosa Passenger Depot at equal distance from Catoosa Springs and the flourishing town of Ringgold.

The Farm contains 450 acres of good land; two hundred in a high state of cultivation; a good two-story Dwelling well finished, with six comfortable rooms: fire place in each; a good double Barn 64 by 32 feet with a good horse power for a thrasher and other machinery; large and commodious frame Stables and Cribbs, &c. The Farm is well calculated for a grazing farm, having water in all the fields and lots, a fine bold running spring convenient to the house, of never-failing limestone water, with several other good springs on the place. Also, a most desirable Apple Orchard: in fact one of the most desirable situations in all Northwestern Georgia.

TERMS.—O. e-half in hand; balance in one and two years, with interest from date.

Persons desirous to purchase would do well to call on, or address me soon. Possession given first of January.

R. A. RAMSEY.

Ringgold, Ga., July, 1857.

Aug57—4t

## FRESH TURNIP SEED.

THE subscribers have obtained from undoubted sources fresh seeds of the following varieties of the TURNIP:

Saiving's Rata Paga,  
Large English Norfolk,  
Large White Globe,  
Large Flat Dutch,  
Large Red Top.

Put up neatly in 1 lb. and ½ lb. papers; and the trade supplied on reasonable terms.  
PLUMB & LEITNER,  
Augusta, Ga.

## TO SEEDSMAN, PLANTERS, &amp;c.

THEOREBURN'S PRELIMINARY WHOLESALE PRICED LIST of Vegetable and Agricultural SEEDS, DUTCH BULBOUS ROOTS, DOUBLE DAHLIAS &c., for the fall of 1857, is just published, and will be mailed to dealers and others requiring seeds in quantities, by enclosing a stamp for return postage.

This year's seeds, so far as harvested, are of prime quality, generally abundant, and prices correspondingly moderate.

J. M. THEOREBURN & CO.,

Sep57-3t Seedsmen, &c., 15 John street, New York.

## WASHBURN'S PATENT AGRICULTURAL Implements

ARE unquestionably the greatest advance in the adaptation of labor-saving Machinery to the production of Cotton that has been made since the invention of the Saw Gin.

The COTTON and CORN PLANTER performs the entire operation of planting with one hand and one mule ten acres a day. It reduces the ridge, no matter how rough or cloddy, to a smooth oval surface; opens the drill to any desirable depth, equally in soft or hard ground; deposits the seed in any desirable quantity, all the seed taking position in line at the same depth and, therefore, coming up at the same time; closes the drill and lightly compresses the surface, leaving it free from clods, not liable to be uncovered or covered deeper by hard rains, and securing a perfect stand in the driest weather.

The combined SCRAPER and HILLER is a double-acting machine, doing the work on both sides of a row at once. When used as a Scraper, operated by one hand and two mules, it bars off and scrapes both sides of a row at the rate of ten acres a day in the most perfect manner, so as not to cover up cotton when it is just out of the ground.

It enables one hand and two mules to perform what now requires four hands, four implements and four mules. The same machine, when used as a Hiller, moulds both sides of a row at once, graduating to any desirable depth, the dirt placed around the young plants, so that all are dirt d (not covered up) and the surface of the row left free from clods.

The operation of moulding young corn and cotton with this machine is performed with ease to the hand and team at the rate of ten acres a day. Both machines are made of iron and well seasoned white oak timber in the most durable manner, and will last indefinitely. All necessary repairs can be done on the plantation by an ordinary blacksmith and carpenter.

The whole crop of corn and cotton can be planted, scraped, moulded by the use of these machines with two-thirds the force now required, and the work better done than by any other method.

Our mode of business is to receive the Draft of the planter on his Merchant (or any one whom he may authorize to pay his Draft), payable on the first of January, February or March, and we will deliver the machines in time for use. Should the money be drawn and the machines not delivered in time for use we will refund it immediately on notice. Freight and forwarding charge must be paid by the consignee, or they cannot be delivered.

Those who desire to use them next season should order immediately, as none will be made except to order, and the supply of material collected for the season's manufacture will depend on the number of orders.

Several orders failed to be filled last season for want of materials owing to the lateness of their receipt.

The price of the Planter is \$50, the Combined Scraper and Hiller, \$50, cash on delivery.

For Machines and County Rights address

A. W. WASHBURN & CO.,  
Yazoo City, Miss.

## Testimonials.

On Friday last we visited Mr. James P. Sessions farm near Jackson, for the purpose of examining the agricultural implements, patented by Dr. A. W. Washburn, as well as to see them operated in the field by Col James J. B. White. We are highly gratified and pleased with each. The planter is unexceptionable, and performs its work with great speed and perfection.

We confidently recommend them to the patronage of all planters, believing that they are, as heretofore represented by many planters and overseers, truly labor-saving machines.

George S. Yeager, J. M. Moore,  
Madison McAfee, G. W. Russell,  
J. A. Horn, Oliver Barrett,  
C. A. Moore, Howell Hobs,  
J. R. Harris, R. N. Eubank,  
T. Graves, James P. Sessions.

"GOOD INTENT PLANTATION," DEAR CREEK, }  
Issaquena Co., Miss. Sept. 30, 1855.

To Col. James J. B. White:—Dear Sir:—Having minutely examined, and further, witnessed the operation of Dr. A. W. Wash-

burn's newly invented Cotton Planter, and Scraper, I take great pleasure in pronouncing them perfect and complete machines, for the work they are intended to perform; having extensively patronized them myself, I confidently recommend them to the use of all planters, believing they will insure and maintain a certain stand of cotton.

Yours very respectfully,

CHARLES J. FORE.

The undersigned have seen Dr. Washburn's Agricultural Implements in operation, and are satisfied that for speed and perfection of work, they surpass anything we have ever seen.

PLANTERS,  
Joseph Andrews,  
James J. B. White,  
George W. Woodberry,  
E. B. Russell,  
A. G. Bennett,

OVERSEERS,  
D. H. Howson,  
J. B. Garrott,  
Wm. L. Clark,  
Jno. T. Jenkins,  
H. G. Lecker

It has been repeatedly said of the Planter that there is neither room nor need for further improvement. But we shall improve on those made heretofore in several mechanical points, which will render more attainable and still more perfect the complete result.

Finding the Chopper unimportant, we have discontinued it, and combined the Scraper and Hiller into one machine. This will cheapen the price of the set, save transportation, and make a more convenient as well as better Scraper. With the combined Scraper and Hiller, cotton may be scraped close to the drill, as soon as it is out of the ground, without being covered up, thus facilitating the rapid forwarding of a late planting, or preventing the establishment of an early stand of grass on land that has been in corn.

These improvements render Washburn's Planter, and Combined Scraper and Hiller the most valuable labor-saving implements ever offered to the cotton planter. The work of each, whether planting, scraping, or hilling, is done by one hand at the rate of ten acres a day in an efficient and uniform manner, surpassing in every element of perfection similar work done by any other means. They unquestionably pay for themselves in one year, while they last many years. The following is some of the testimony which the trial of these machines has elicited. It will be observed that some of the names are the same which were given last year. The reason of this is that their first opinions were formed on witnessing a mere experiment in our own fields, or where they might suppose the most favorable circumstances had been secured for exhibiting to advantage.

Now they testify positively of their own extensive use

MONTEREY, YAZOO COUNTY, April 1, 1857.

I am planting with three of Washburn's Planters and am satisfied they do the best planting I ever saw. J. M. DEMENT,  
Overseer for A. M. Payne.

April 1st, 1857.

I have tried Washburn's Planter and am satisfied with the work and recommend it to the planting community.

D. MCCURRY,  
Overseer for Col. J. D. Stewart.

April 1st, 1857.

I have tried Washburn's Cotton Planter, and find that it is represented to be.

N. B. STREET,  
Overseer for Joseph Andrews.

IVANHOE PLANTATION, April 13th, 1857.

Having used one of Dr. A. W. Washburn's patent Planters, I feel no hesitation in saying that he same works beautifully, so much so that, in my opinion, he has left no room for further improvement in the way of an implement with which to plant cotton.

S. GROVES CHAMBERS,  
Overseer for Geo. S. Yeager.

YAZOO COUNTY, May 3, 1857.

Dr. A. W. Washburn—Dear Sir:—I have secured a perfect stand of cotton under most unfavorable circumstances, by using your Planter.

JAMES P. O'RILEY,

YAZOO COUNTY, April 2, 1857.

Dr. A. W. Washburn—Dear Sir:—I have witnessed a thorough trial of your Cotton Planter. It performs admirably, and cannot fail to give universal satisfaction.

Very respectfully,  
W. PARKER SCOTT, 1, Episcopal Minister.

WYOMING PLANTATION, May 28, 1857.

Dr. A. W. Washburn—Dear Sir:—Having thoroughly y tested your Planters, both on the Hill sides and level lands, I feel no hesitation in pronouncing them the best implements of the kind I have ever seen, and would recommend them to every planter who desires to secure a perfect stand.

Respectfully,  
J. W. THOMSON.

Dr. Washburn—Dear Sir:—I have in operation on my plantation (which is hill-land with circled rows about 3½ to 4 feet wide) one of your Cotton Planters, and am fully satisfied with its performance. It does the work, in my opinion, perfectly.

C. BOWMAN.

Extract of a letter from Mr. W. Monroe Quinn.

QUINN'S STATION, N. O. & J. R. R. }  
Pike Co., Miss. April 27, 1857.

Dr. Washburn & Co.:—I have planted my whole crop with your Cotton Planter, and upon the whole, I now think that it is as high perfect as can be made. To a practical planter, is bound to give perfect satisfaction and work a reformation among Southern agriculturists, as well as (I hope) to pay you well for your invention. With my best wishes for the further improvement and wide extension of what I consider now the best Agricultural Implements of the age, allow me to remain,

Yours,  
W. M. QUINN.

YAZOO COUNTY, June, 1857.

I have used Dr. Washburn's Planter for planting, and his Hiller



for moulding cotton, in managing Dr. Woodberry's crop, and think too much cannot be said in their favor.

THOMAS VANCELEAVE.

INCHEPA, near Yazoo City, June 10, 1857.  
A. W. Washburn & Co.—I have planted considerably over one hundred acres of cotton with Washburn's Patent Planter; and have obtained a perfectly healthy stand under most unfavorable circumstances. I have also used the Hiller, which (after I had braced the plows) speedily relieved me from the danger of being injured by grass, by enabling me to mould from eight to ten acres a day with one hand, doing the work in the most perfect manner. It works easily to the hand and team, effectively and with the most beautiful uniformity. In short, the Planter and Hiller are unexceptionable and invaluable. I would not be without them in future were the price doubled.

G. W. WOODBERRY.

YAZOO COUNTY, Miss., June 20, 1857.

A. W. Washburn & Co.—Gentlemen:—I have planted the entire crop under my management, corn, cotton, and some Osage O range for hedging, with Washburn's Patent Cotton Planters. I have scraped and hilled it with his Scraper and Hiller, and have experienced no difficulty in obtaining the most perfect uniform and healthy stands I ever saw. I have had no lice or any other disease common to young cotton.

I have no hesitation in pronouncing Washburn's Planters, and Combined Scraper and Hiller the most valuable labor-saving implements for the field ever offered to the planter.

They work easily to the hand and team, and do the work thoroughly, and with a degree of uniformity and exactness, unequalled by any other method, and unimaginable by one who has not seen them work. They are very durable and easily kept in repair, and, in my opinion, will pay for themselves in one year.

M. S. INGRAM.

ST. FRANCISVILLE, La., April 28, 1857.

Dr. A. W. Washburn—Dear Sir:—I have used the Cotton Planter, purchased of you, and my neighbors as well as myself are very much pleased with its performance. I shall want two more for next season, and think there will be a demand for them in this Parish as soon as they become known.

H. H. CONNELL.

YAZOO COUNTY, June 24, 1857.

A. W. Washburn & Co.—Gentlemen:—I have used Dr. Washburn's Planter, and Scraper and Hiller this season, with unparalleled success. They are capable of securing a more perfect stand, while they do the work better than by any other means I have ever known. The Planter being already sufficiently perfect, the combination of the Scraper and Hiller into one machine, by reducing the cost and facilities, and improving effect, has left no room for further improvement.

I shall use them more extensively next season, and shall want some more machines.

Yours truly,

Sept 57—tf

JAS. P. O'REILLY.

## HYACINTHS, TULIPS, DOUBLE

Dahlias, &c.

THE subscribers offer this season a more extensive assortment than usual of Dutch BULBOUS ROOTS, imported from the best flower nurseries of Europe, in the finest condition, and all first class Bulbs embracing every desirable variety of Double and Single Hyacinths, adapted for house and out-door flowering; Early and Late, Double and Single Tulips of every shade and hue; Polyanthus Narcissus; Roman Narcissus for early winter blooming; Single Narcissus; Double and Single Jonquills; Crocus of all sorts including some very fine new named seedling varieties; Crown Imperials; Fritillarias; Gladiolus; Iris; Lilies; Arums; Colchicums, with numerous other sorts of approved tested value.

Catalogues of the above, with descriptions and directions for planting and manuring, will be mailed to applicants enclosing a stamp.

HYACINTH GLASSES, FANCY CROCUS POTS, &c.

J. M. THORBURN & CO.

Sept 57—3t

15 John street, New York.

## GRAPES FOR THE SOUTH!!!

THE subscriber offers for sale several thousand rooted Vines and Cuttings of the following varieties of Native Southern GRAPES, all of which have been proved to be fully adapted to the climate, and excellent both for Wine and the Table:

Isabella, Black July, Burgundy, (so called),  
Warren, Catawba, Scuppernon.

Gentlemen wishing to plant largely for Wine making, will be supplied with rooted vines or cuttings on very liberal terms. A plain, practical Treatise on the Culture of the Vine in the open air, as successfully practiced in South Carolina and Georgia will be freely mailed to all purchasers of vines; or to other applicants who enclose a postage stamp.

Sept 57—tf

D. REDMOND,

Augusta, Ga.

## GLOAMING NURSERY--CLARKSVILLE,

Habersham County, Ga.

THE Subscriber again offers to the public a fine and thrifty growth of Southern raised FRUIT TREES, consisting of Apples, Pears, Peaches, Nectarines and ORNAMENTAL SHRUBBURY. The collection and variety of Southern Seedlings is the largest and most select in the South, many of which are new and very superior and not heretofore offered for sale by any Nurseryman.

Catalogues containing prices, information on planting and routes for transportation, &c. sent gratis, on application, by mail or otherwise.

[Sept 57—2t]

J. VAN BUREN.

## FRUITS AND FLOWERS FOR THE SOUTH!!!

"Fruitland Nursery," Augusta, Ga.

I SHALL offer, the coming fall, for orchard and garden planting, an unrivalled collection of

Apples, Apricots, Almonds, Peaches, Cherries, plums, Nectarines, PEARS!

Grapes, Pomegranates, Strawberries, Figs, Raspberries, Blackberries, Hedge Plants, Roses, Evergreens, &c., &c.

In short, everything new, desirable and adapted to our climate.

Descriptive and Price Catalogues mailed free of postage to all applicants. A Supplemental Catalogue (containing many new and rare Fruits found in no other collection) will be issued early in September and freely mailed as above. November December and January are the best months for transplanting. All orders and letters containing remittances acknowledged by return mail.

Address:

D. REDMOND.

Sept 57—tf

Augusta, Ga.

## SITUATION WANTED.

A YOUNG gardener, unmarried, wishes to obtain a situation in the South, either in a nursery, or to take charge of a private Garden, Greenhouse, &c. He has been regularly brought up to that business, and familiar with the climate of the South, having been employed there for the last 9 years. He has good recommendations.

Persons wishing to employ him will please address

ROBERT NELSON, Augusta, Ga., or

W. K. NELSON, care of Wm. Reid,

Elisabethtown N. J.

Sept 57—2t

## PLANTATION AND COUNTRY RESIDENCE For Sale.

THE Subscriber offers for sale his PLANTATION AND COUNTRY RESIDENCE. The Tract contains 1260 acres, most of which is fine productive land. The soil is what is called sandy, with a clay foundation—consists of red and grey lands, and is well adapted to the culture of Cotton. There is upon the tract a body of Pine Land, finely timbered, and an abundance of stock water is afforded from never-failing streams. The place is well adapted to the business of stock raising. There are on the premises a large framed Dwelling House, with ten rooms; all necessary out-houses; a new Barn and Stables; new Negr Cabins, with brick chimneys, sufficient in number to accommodate from thirty to forty negroes and a good Gin House and Screw. There are fine Peach and Apple Orchards on the premises, with other varieties of fruit. The location is in the county of Autauga, 14 miles from the city of Montgomery, 2 miles from the flourishing manufacturing town of Prattville and 4 miles from the Alabama River. The situation is elevated and beautiful, and cannot be excelled for good health; and the water is unsurpassed. There are fine mills in the vicinity, and the neighborhood affords the best of society.

The subscriber wishes to sell because his profession compels him to reside off the premises, and they are too valuable and desirable to be converted into a mere negro quarter.

A good bargain will be given, and terms made easy. Address:

THOMAS J. JUDGE,

Montgomery, Ala.

P. S.—A valuable stock of CATTLE, &c., would be disposed of with the premises, if desired.

Sept 57—4t

## GRAPE CULTURE--VINEYARDS--WINE!

THE subscriber will receive and fill orders for Cuttings and Rooted Vines of the Catawba Grape from one dozen to thousands. He will furnish either Southern Cuttings and Vines from the Vineyards of Mr. CHARLES AXT, and his own Nursery, or Western Cuttings and Vines from Cincinnati, at a reduced rate. The Isabella, Warren, Scuppernon, and other hardy Grapes, also supplied; in addition to a choice collection of the finest Foreign varieties, such as Black Hamburg Muscat of Alexandria Cannon Hall Muscat, Black Morocco, Syrian, &c., &c. Early orders solicited.

Full and complete Descriptive Catalogues of Fruit Trees, Vines, Roses, Shrubs Evergreens, &c., with hints on culture, sent free of postage to all applicants. Address:

D. REDMOND, Augusta, Ga.

"Fruitland Nursery," August, 1857—tf

## DEVON AND ALDERNEY CATTLE FOR Sale.

I OFFER for sale the following thorough-bred DEVON CATTLE, viz:

### DEVONS.

3 Heifers, in calf to my bull "Springfield." (See Davy's Devon Herd Book, 2nd vol.)

1 Heifer in calf to same bull.

2 Heifer Calves and 3 Bull Calves, from same bull.

All these animals are out of Patterson cows, by Patterson bulls. Also, Bull "Springfield." (See Davy's Devon Herd Book.) Springfield gained the first prize at the Atlanta Fair, 1855, as a 2 year old.

### ALDERNEY.

1 Alderney Bull, 1 year old, out of an imported cow, and sired on the Isle of Jersey, by a 1st prize bull.

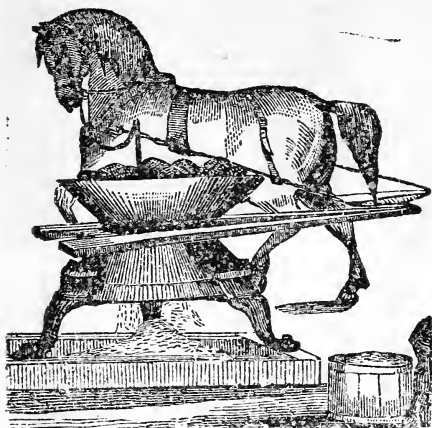
I can furnish undoubted pedigrees with all the above animals, and will deliver them at the Railroad Depot, at Athens, Ga., free of cost to the purchaser. Address:

Sept 57—tf

GEO. H. WAKING

Clarksville, Ga.

# SCOTT'S LITTLE GIANT CORN AND COB Mill Improved.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials by SCOTT, MOCK-BEE & CO., under the immediate supervision of the Patentee.

## CARMICHAEL & BEAN GENERAL AGENTS, AUGUSTA, GA.

THE attention of Planters and Stock Feeders is respectfully called to this MILL, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being only necessary to fasten them down to a floor or platform and for this purpose the requisite screws and a printed card of directions will accompany each mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION**—The Little Giant has always taken the first premium wherever exhibited; and we challenge the patentees, manufacturers and agents of all other mills, to produce *proofs* of its ever having been equalled at any trial conducted by disinterested persons and on fair terms. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These mills are guaranteed against defects or breakage, when used according to the directions and as evidence of their durability, a No 2 Mill, which has ground nine thousand bushels, and a No 3 Mill, which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold at \$50. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession on official written and printed testimonials which we will gladly exhibit to persons wanting mills, showing and proving the superiority of the Little Giant over all others:

### TESTIMONIALS.

AUGUSTA, GA., April 3, 1855

I have been running one of SCOTT'S LITTLE GIANT CORN AND COB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour. But I have ground over thirty-five bushels in an hour and a half, or equal to twenty-three and half bushels per hour. In feeding thirty horses I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of crusher ever got up and if I could not replace mine, I would not sell it for five hundred dollars.

I D M THEWS,

Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20, 1857.

Messrs CARMICHAEL & BEAN—Gents.—After having used the Little Giant constantly for two years I cheerfully confirm every statement made in my certificate of the 3d of April, 1855.

I. D. MATHEWS.

BEECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta, Ga.—Gents.—I have

had a No. 3 Little Giant in constant use for the last two years, and have fed my stock entirely on Corn and Cob Meal. I have never worked my horses and mules harder than during this time, and they have never been in better condition than they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent by using the mill. I am acquainted with several kinds of crushers, but consider the Little Giant far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gents.—We are using the Little Giant Corn and Cob Mills which we bought from you, and hereby recommend them to Planters and Stock Feeders as the most simple and durable, the most easily propelled, and best crushers we have ever seen, and by the use of which we believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr. Crawford has two mills in use.

A. J. RAMBO, Edgefield District, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTUP, Warren county, Ga.

JOHN E. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GOODE ERYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

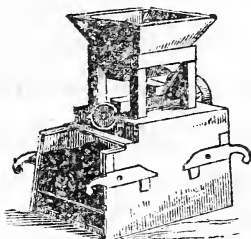
PORTER FLEMING, Augusta, Ga.

JAMES TORRYE, Lexington, Miss.

May 57—tf

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



**FELTON'S**  
PATENT  
**PORTABLE GRAIN MILL.**  
TROY, N. Y.

FOR grinding all kinds of Grain, including Corn and Cob, and adapted to the use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Planter, it is designed to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. Its very simple construction,—the grinding surfaces are of the most durable character, and are Self-Sharpening, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost,—and the price comes within the reach of every Planter and Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is capable of grinding three bushels per hour with one horse power, and from six to eight bushels with two horse power; it grinds sufficiently fine for family use, and does not heat the meal—a most valuable feature.

The perfecting of this mill is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. Numerous testimonials, in its favor have been received and will be cheerfully exhibited to all.

All orders for Mills, Communications, &c., will be promptly attended to, and should be addressed to the Agent.

May 57—tf

D. CHAFFEE, Augusta, Ga.

## FRUITLAND NURSERY, AUGUSTA, GA.

Fruits and Flowers for the South!

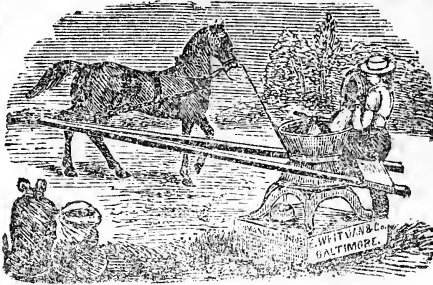
THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing

D. REDMOND, Augusta, Ga.

Dec 56—tf

## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAYNOR'S "CHAMPION."

- The Manufacturers of the "Young America" claim for this Mill:  
1st. That it will crush Corn and Cob; also, grind fine Meal.  
2nd. That the entire grinding surface can easily be replaced at a small cost.  
3rd. That it has an extra set of fine and coarse plates.  
4th. That it deposits meal in a box or bag.  
5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.  
6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of the "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding parts lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf H. & J. MOORE & CO.

LANDS IN SOUTH WESTERN GEORGIA  
For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany, y 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

Albany, Ga., Oct. 10th. 1856.

W. W. CHEEVER.

Nov56—tf

"FRUITLAND NURSERY," AUGUSTA, GA.  
IMPORTANT NEW ARRANGEMENT.

THE Subscriber takes great pleasure in informing his customers and the Fruit Growers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of N. J. Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which number many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen orchards of M. BERCKMANS contain all the best and rarest variety of other fruit known in Europe and America, from which we shall call every thing of special merit. It is not our object to multiply varieties, but to select, with the greatest care, the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, Roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at very moderate prices.

Full Descriptive and Priced Catalogues, sent post paid to all applicants. Address, D. REDMOND, Augusta, Ga.  
April57—tf

NATIONAL AGRICULTURAL AND SEED  
Warehouse.

NO. 251 Pearl street (between Fulton and John streets), New York.

TREDWELL & JONES, Manufacturers, Importers and Dealers in all kinds of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and MACHINERY for Plantation use, invite the attention of Dealers and Planters to their large assortment of Implements expressly adapted for the South—comprising upwards of ONE HUNDRED AND FIFTY different styles of PLOUGHS and Plough Castings, and patterns for Casting all kinds of Plantation Machinery.

FERTILISERS, FIELD and GARDEN SEEDS.

Any Implements, Castings or Machinery manufactured to order, at short notice, in a superior manner.

May57—tf

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, a d all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

## PRICES.

2½ Horse Power.....	\$375
4 do. do. ....	500
6 do. do. ....	700
8 do. do. ....	900
10 do. do. ....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

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98 Magane St., New Orleans.

Feb57—ly

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Sommerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska," a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

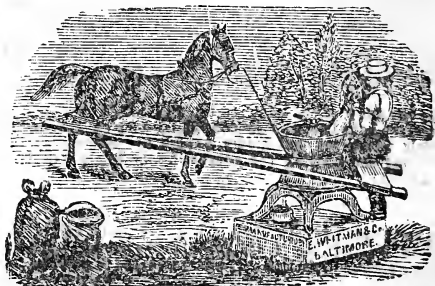
The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

JAMES R. FERGUSON,  
Memphis, Tenn;

June56—tf

## YOUNG AMERICA CORN AND COB MILL.

The Cheapest and best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

JOHN & THOS. A. BONES.

March—tf





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## GRAPE VINES AT IONA.

**I**ELAWRE, Concord, Union Village Early Hudson, Hartford, Raabes's Clara, Raabe, Eltingburg, Rebecca, Herbermo, Garrigue's Arkansas, York Madeira, Clinton, Emily, Minor, Cayaba Diana, To Kilon, Conby's August, Marrión, Bian, Lyman, Brinkie, Mountain, Isabela, and Hydies Eliza. Also, Strawberry, McCowan, Charter Oak, and Northern Muscadine.

A general assortment of RASPBERRY PLANTS, including Brinkie's Orange, which is best of all Raspberries in cultivation for the market or garden. A small lot of Myatt's Linneus RHUBARB PLANTS, superior.

All of the above plants are offered singly by dozen, or to the trade. Address C. W. GRANT, Oct 57—tf Iona, near Peekskill, Westchester Co., N. Y.

## RUMSOM NURSERIES.

**25,000** PEACH TREES, of fine growth and approved varieties.

10,000 ORANGE PLANTS for Hedging.

5,000 ASPARAGUS ROOTS.

Also, STRAWBERRY PLANTS Basket WILLOW (Siziz) Hedges, CUTTINGS, &c. ASHER HANCE & SON, Oct 57—3t Near Red Bank, Monmouth co., N. Y.

1857!

1857!

## SOUTHERN CULTIVATOR.

A MONTHLY JOURNAL,

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &amp;c.

DANIEL LEE, M. P., and J. REDMOND, Editors.

The Fifteenth volume commences in January, 1857.

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## FOR SALE.

**H**AVING determined to remove West, I offer for sale my RESIDENCE in the immediate vicinity of Columbus, and my PLANTATION in Russell county, Ala.

The former is a handsome and commodious building, containing ten rooms, besides basement, store and ironing room. The outbuildings are well arranged for comfort and convenience. Attached to the residence are twenty acres of land, in fine cultivation, with a position on the main road, sufficient for one or more buildings. The healthfulness of the locality is unsurpassed.

My Plantation is 15 miles west of Columbus, on Uchee Creek, and 5 miles from the Mobile & Girard Railroad, and contains 2,600 acres. My success in making cotton is the best criterion of its claims upon the purchaser. Being susceptible of subdivision into three or four farms, some of which have improvements, I will sell all together or in separate settlements to suit purchasers. If desirable, I will sell the growing crop with the land, arranging for the overseer to remain with the hands to gather the crop under the direction of the purchaser.

In my absence, any one wishing to see my house and lot, can apply to my neighbors, Mr. Wm. A. Redd, A. C. Flewelen, or W. E. Jones. J. R. JONES.

Columbus, Ga., June 9, 1857.—oct 57—tf

## VINEYARDS IN THE SOUTH!!

**R**OOTED VINES and CUTTINGS of the CATAWBA—the great Wine Grape of the South—will be furnished by the subscriber from Vineyards under his own direction at Montgomery, Ala., Dalton, Atlanta, Crawfordsville, Washington and Augusta, Ga., and Abbeville, S. C. To insure freshness and save transportation, applicants will be furnished from Vineyards nearest to them, in all practicable cases. These Vines and Cuttings will be ready for delivery by the 1st of January, 1858, and as the supply is limited, early applications are advisable.

Purchasers will be furnished with full printed directions for planting, cultivating and pruning the vines until they come into full bearing—these directions will be plain and explicit, having no person can be sure of success. My Wine has stood the test of the best judges; it is now in market, and will rest on its own merits.

Address: CHARLES AXT, Oct 57—tf Crawfordville, Ga.

## AMERICAN FARMER'S ENCYCLOPEDIA.

**E**MBRACING all the recent discoveries in Agricultural Chemistry, and the use of Mineral, Vegetable and Animal Manures. With Descriptions and Figures of American Insects injurious to Vegetation. Being a complete guide for the cultivation of every variety of garden and field crops. Illustrated by numerous engravings of Grasses, Grains, Animals, Implements, Insects, &c. By Gouverneur Emerson, of Pennsylvania, upon the basis of Johnson's Farmer's Encyclopedia. Price \$4. Sent free of Postage upon receipt of price. No Farmer should be without it. Published by C. M. SAXTON & CO., Oct 57—1t Agr'l Book Publishers, 140 Fulton st., N. Y.

## SORGHO SUGAR, SYRUP AND BRANDY.

**T**HE Undersigned is prepared to supply Sugar MACHINERY and DISTILLERY Apparatus of the most improved description, accompanied with instructions for Sugar or Syrup boiling and Distillery required. CORN MILLS of all sizes, Sugar and Syrup PANS, and DISTILLERIES for sale by

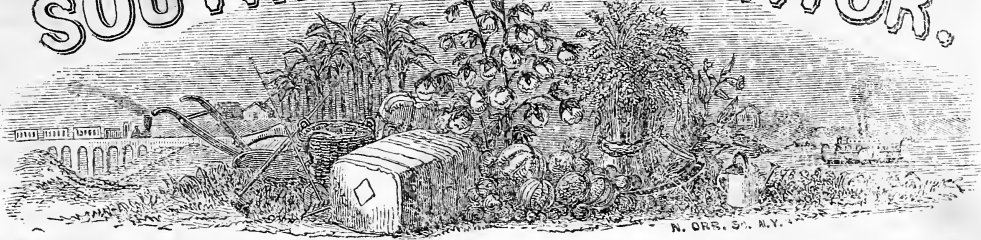
JOHN W. FEID, Mechanic, Coppersmith and Brassfounder, Oct 57—1t 11 Old Slip, New York.

## ESSEX PIGS FOR SALE.

**T**HE Subscriber now offers for sale a number of Spring PIGS of this popular breed, singly or in pairs, well fitted to breed together. They were sired by the English first prize Boar, "Chesterford" and "Barn" which were imported last autumn, at a cost of over \$400. The pigs are a very superior lot, and will afford a new cross on those descended from previous imports. Address C. S. WAINWRIGHT, Oct 57—1t The Meadows, Rhinebeck, New York.



# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV.

AUGUSTA, GA., NOVEMBER, 1857.

NO. 11.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M. D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH---NOVEMBER.

#### THE PLANTATION.

**Cotton.**—The picking, ginning and baling of the crop should be entirely finished by the middle of this month, in order that the planter, his negroes and animals, may have a little respite and "breathing space" before the labors of the the next crop come on. There is no branch of agriculture that requires so much unremitting and continuous hard work as the making of a good Cotton crop, and the wise and humane planter should avail himself of all the leisure he can obtain, between crops, for relaxation, and the carrying on of various necessary plantation improvements, too often entirely neglected. So long as Cotton is cultivated to the almost total exclusion of every thing else, we cannot hope for any high degree of rural improvement in the South; but surely, with the advantages of climate and labor which we possess, we can all do much more than we have yet done to improve our lands and beautify our homes. Let us at least, make the effort; and do everything that is possible for the advancement of our most favored region.

In the preparation of Cotton for market, it will be well to heed our previous suggestions in regard to careful ginning and handling; as the price will depend as much upon this as upon the natural quality, or length and fineness of the staple.

**Sweet Potatoes.**—Cut off the vines as soon as the frost nips them severely; then dig, and carefully bank or house as soon as possible.

**Small Grain,** such as Barley, Rye, Black Winter and Egyptian Oats, Wheat, broadcast for a field crop, and Wheat in the drill, for winter and early spring "soiling" or feeding green—all these must now be sown as soon as possible. Hardy Winter Grasses, such as Clover, Lucerne, "Stanford's Wild," the Tall Oat Grass, Guinea Grass, (so called,) &c., &c., must, also, be put in the ground at once. Manure heavily, plow very deep, pulverize finely, and roll in your seed with a heavy

roller, if you wish to be remunerated for your time and labor.

Hedges of the *Osage Orange*, *Honey Locust*, *Spanish Bayonet*, *White Macartney* and *Cherokee Rose*, *Fortune's Yellow Rose*, *Pomegranate*, *Jujube Tree*, *Japan Quince*, "*Mock Orange*," *Pyracantha*, *American Holly*, *Cedar*, *Arbor Vitæ*, *Euonymus Japonica*, *Privet*, &c., &c., for defence and ornament, should be set out the present month and during the winter. They add greatly to the beauty and value of the homestead, and the *Osage Orange*, *Honey Locust*, &c., form the surest protection to our gardens, orchards and pleasure grounds.

#### THE ORCHARD, GARDEN AND NURSERY.

**Fruit Trees**, of all the choicest varieties of *Southern growth*, should be planted now, as soon as the ground is well moistened by the early fall rains. If you delay until spring, you will be too much hurried with other work to give this important matter the proper attention, and it may not be done at all. Prepare the soil for Vineyards, and plant your Grapes; now is the best time to set them out. Remember! that all trees (except some *Evergreens* of the fir tribe) succeed best in the South, when planted in fall or early winter—that by planting now, you gain a year in the bearing of your Fruit trees, and that, if you will take the proper pains at first, there is little to do afterwards—plant more trees, they "will grow while you're sleeping!"

Full directions for the transplanting and management of *Fruit and Ornamental Trees* were given last month, and may be found in the Nursery Catalogues of *Fruit and Ornamental Trees* for the South.

Sow *Cabbages*, *Turnips*, *Parsnips*, *Lettuce*, *Carrots*, *Radishes*, &c., &c. If you sowed Cabbage seed last month, and now have plants with four or five leaves, lift them carefully and plant them out 2 inches apart on a bed, which you can cover over during severe frost. They will be the earliest and best for setting out early in the spring. Haul plenty of manure on your garden, have it well spaded, burying under all enriching animal or vegetable matter. Transplant *Brocoli*, *Cabbages*, *Celery*, "*Col-lards*," &c. Dress and manure your *Asparagus* beds, not forgetting to give them a liberal top-dressing of salt before spring—dig the manure in with a fork, which will do less

injury to the roots than a spade. Save all old bones, soap suds, dead leaves, decayed vegetables, &c., and make up into compost heaps for future use. Plow and subsoil your ground for the planting of young orchards, and provide a supply of roots and stocks for the propagation of all new and desirable varieties of Fruit adapted to our Southern climate. Recollect, that all manure should be worked in deeply, fresh stable manure in particular. Clean out all trash in the fence corners and other places; put it in heaps, well mixed with stable manure, and have the compost ready for spring use.

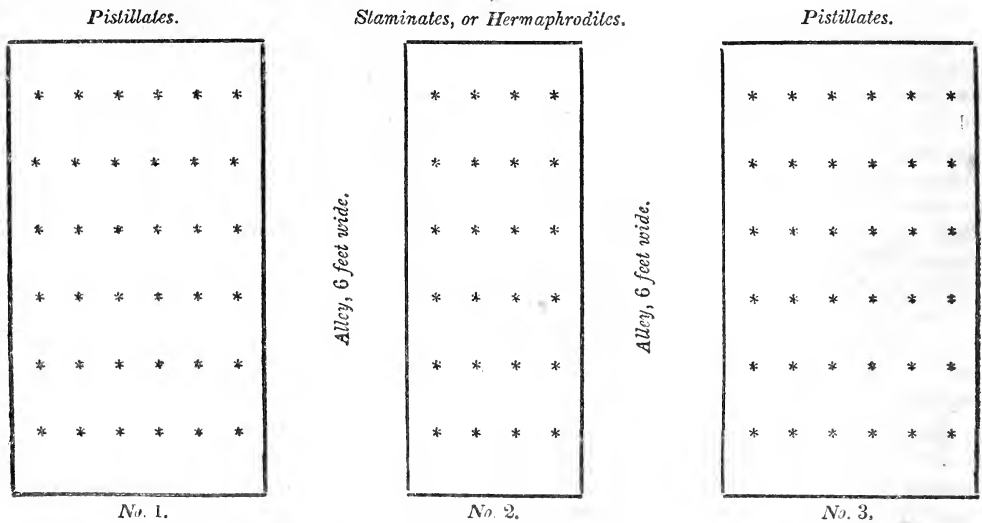
All Flower bulbs, as Hyacinths, Tulips, Amaryllis, Gladiolus, Peonias and others, should now be planted.

#### THE STRAWBERRY PATCH.

The best soil for this delicious fruit is a sandy or even a gravelly loam, moist, and rich in vegetable matter. An excellent compost for an acre of ground would be 60 bushels of leaf-mould from the woods, 20 bushels of leached ashes, 5 bushels lime, and 3 or 4 quarts of salt. (This same proportion may be observed for any given quantity of land.) Mix thoroughly, let it stand two or three days, scatter broadcast, and plow in. Then harrow or rake the surface, making it fine, and set your plants in rows 3 feet apart, and 1 foot or 15 inches in the row. Or, if planting for market, on a large scale, set your plants in 3 rows one foot apart, and leave a 2 foot alley between every strip of

this kind—said alley to be kept clean and open with the horse-hoe. After the plants have become well rooted, cover the whole with partly decomposed leaves from the forest, or even chopped up pine or broom straw, leaving nothing exposed but the leaves and fruit-stalks of the plants. Many choice varieties have been heretofore mentioned, but we will briefly recapitulate: *PISTILLATES*, (or female blossom,) *Hovey's Seedling*, *McAvoy's Extra Red*, *Crescent Seedling*, *Black Prince*, *McAvoy's Superior*, *Crimson Cone*. *STAMINATE*, or *HERMAPHRODITE*, (male, or "perfect" blossom,) *Longworth's Prolific*, *Boston Pine*, *Walker's Seedling*, *Early Scarlet*. Many new varieties as: *Boyden's Seedling*, *Jenny Lind*, *Lucy Fitch*, *Peabody's New Hautbois*, *Scott's Seedling*, *Trollope's Victoria*, *Iowa* and others, have proved quite valuable the present season. The *Early Orange*, is the earliest, exceedingly prolific, and a never failing bearer.

We have abandoned the planting of Pistillate plants among Staminate, for the reason that they grow so rampantly that they soon mix up with, overrun, and crowd out the bearing plants. A proper admixture of Staminate (or impregnators) being absolutely essential, however, we re-publish the following diagrams, which set forth the proper system of planting, to secure the *largest crops*, and keep the different varieties entirely separate and distinct:



It will be seen that Nos. 1 and 3, containing Pistillate plants, are fertilized or impregnated by the Staminate plants in the narrow centre bed, No. 2, from which they are separated by alleys 6 feet wide—these alleys to be

kept scrupulously free from all runners, especially those thrown off by the Staminate plants in the centre. The beds may be made of any required size. The stars (\*) represent the plants in 3 foot rows, 12 or 15 inches apart in the row.

**HOW TO MANURE TREES IN GRASS LAND.**—Very few persons manure trees growing in sod or grass land, in a judicious or economical manner. The general practice is to dig the manure in, within a diameter of six feet, having the body for the centre. The tree takes its food from the young rootlets, whose mouths extend just as far on every side as the branches of the tree; hence, this manure applied close to the body of the tree, is not where the roots can take it up; and of course but little of its value is absorbed by the tree. If you doubt it, just try the experiment on two trees. Serve the one as above named, and

the other, as follows, viz:—Mark a circle around the tree having for the outer line the exact radius formed by the overhanging branches; dig on the inner side of this circle a trench two feet wide, and one foot deep; mix well rotted manure half and half with the best of the soil, or the earth dug out of the trench, and fill the trench with it; then replace the turf, and wheel away the refuse or extra earth, rake clean and smooth; you will have a good growth of tree; your fruit larger and more fair, and no unightly or unnatural hollock or mound around the body of the tree.—*Ohio Farmer*.

## DYING OF YOUNG COTTON--ITS CAUSE AND Prevention.

EDITORS SOUTHERN CULTIVATOR—During the last spring there was an unusually extensive and loud complaint among planters of the "dying off" of young Cotton. To such an extreme degree did this alarming fatality prevail that it was designated and extensively commented upon as "the cotton disease, the cotton epidemic," &c. At one period, so late that cotton planted afterward could not promise more than half a crop, and when seed had become extremely scarce, the whole country seemed trembling under the impending danger of a lost crop. From every direction came accounts of portions of crops plowed up and planted with corn, and other portions so deficient as scarcely to be worth cultivating. In such a crisis, without any clear convictions of the nature of the cause, or how to avoid a repetition of the same disastrous result, should they plow up and plant over, it is not astonishing that planters should feel extreme anxiety. The result was, that replanting, without plowing up, was practiced more extensively, and to a later period than was ever before done.

Feeling this subject to be one of great and growing importance, and having had no occasion to plant over or replant a single seed of cotton for the last three years. I feel authorized to invite the attention of planters to my views on the cause and prevention of this calamity. The dying off of young cotton in bunches, though a common spring complaint, does not appear to have awakened sufficient investigation to have led to the general adoption of any well defined and philosophic views of its cause, or to have discovered any successful plan of prevention. No season of planting and scraping passes without giving rise to the frequent observation of planters in the common phrase, "My cotton is dying off in bunches;" or, "I planted a plenty of seed—it came up and looked well for a few days, but it is dying off. I fear I shall not get a stand without a good deal of replanting." When cotton seed are so cheap and so many are planted to the acre, why is there so much need of replanting?

Corn, of which the seed is so valuable as to lead to the use of a much smaller quantity to the acre, though planted with less care, if it comes up, does not die afterward. If we enquire of the intelligent planter, or the practical overseer what is the cause of this common annual fatality, which has this season threatened the world with a deficient supply of cheap clothing, the frequent reply is "Cotton is harder to get a stand of than corn, it will die off after it comes up." In the kingdom of commerce, and in those political kingdoms where commerce builds the throne, cotton is the "power behind the throne greater than the throne itself." It is the prop sought for the archimedean lever, to turn the world. It is at this moment the fulcrum on which hangs, tremblingly, the great balance of human destiny. Yet, at the very threshold of its life, lurks a fatality, with cause obscure, unascertained, but capable under peculiar circumstances, of obliterating, in embryo, the otherwise well founded hopes of the husbandman, and sensibly diminishing the prosperity and comfort of individuals and nations.

But the question recurs: What is the cause of this annual difficulty in securing a stand of cotton after it is up? Here, as in most cases of ignorance, it is common to evade personal responsibility by accusing the weather, or some accidental or providential circumstance, over which the complainant has no control. Not dreaming that his pecuniary interest can be materially affected by any of the

great natural laws that lie, unknown to him, at the foundation of his business, and not troubling himself to ascertain the relation which his arbitrary operations sustain to the fixed laws, which maintain a constant harmony between "seed time and harvest," the planter finds himself frequently disappointed in anticipated results, and sagely charges his disappointment to the weather, or, perhaps, to chance.

The dying off of young cotton is attributed by different persons, and by the same person at different times, to the following opposite conditions: Cold weather; cold nights and warm days; hot, dry weather; hard heating rains; hard ground; loose ground, not settled by rain before planting; bad seed from being slightly heated, &c. Shade of philosophy preserve us! What an array of opposite conditions to be the cause of one uniform effect.

Dissatisfied with such unreasonable opinions, long ago, I began to seek for a more uniform antecedent, and having found one as invariable as the fatality, I accepted it as the cause. I have caught the cotton infanticide, *in flagranti delicto*, and can identify both principal and accessory, and demonstrate their degrees of participation. Though I have never before attempted to drag this incorrigible destroyer before a public tribunal, I have never failed on suitable private occasions to demonstrate the truth of my suspicions in the field.

The only secret and implacable slayer of young cotton is the *seed*. And the planter himself is the only culpable accessory. Frost may kill young cotton, but it does it openly and unsparingly—not by the single plant or in bunches. Cut-worms and other insects may destroy it, but their operations are visible and quite limited. That the seed having been partially heated cannot be the cause is evinced by their germination.

The heat alluded to is that evolved by incipient decomposition, which cannot be developed without the carbonaceous and nitrogenous products having, in obedience to chemical affinities, undergone a change destructive of the vitality of the germ, or incompatible with the peculiar molecular arrangement necessary to furnish the first particle of nutriment demanded by the germ, to sustain and carry forward its vital effort to produce a new plant. If a seed possesses the vitality, in combination with the elements of nutrition, essential to incipient life, necessary to complete the process of germination, evolving a new and living being—complete in all its organs—it is the most substantial evidence of its healthiness and freedom from any material injury previous to its germination. How, then, is the death of the young plant, after it is several days old, produced by the seed, if they are sound?

The majority of seeds are classed by Botanists under two general heads, called Monocotyledons and Dicotyledons. The former have only one cotyledon or lobe, the latter have two in each seed. These cotyledons or seed lobes, are destined to be developed by the process of germination into the first one or two leaves, respectively, of the new plant, called sometimes the seed leaves.

Corn is a Monocotyledonous and cotton a Dicotyledonous plant. In the monocotyledons, the whole seed remains in the ground and develops and supports the young plant, until the root and the stem are sufficiently advanced to perform their respective functions, and constitute an independent plant.

The root starts immediately downwards and begins to branch in search of such elements as it requires, while the stem makes its way upward by the gradual elongation of a mere point, turning now this way, now that, to elude obstruction, till it, almost irresistibly, penetrates the surface in the pursuit of light, heat and air. Such are the cereals, and the grasses which the Omniscent Providence has thus enabled to overcome the difficulties incident to germination and healthy coming up, to ensure the never-

ailing production of food for man and beast. In cotton, which is a Dicotyledonous plant, the two cotyledons or lobes nicely rolled up in the seed, by the absorption of heat and moisture, expand and crack the pericarp or hull, when the radicle issues, and whatever be the position of the seed, starts immediately downward forcing its way deeply into the ground by the continual elongation of a point, and producing what is called the tap-root. Having obtained some hold in the ground, and needing the further action of light and air to develop the cotyledons into leaves, it begins to exert a lifting power upon the seed which first cracks the ground, and finally forces its way to the surface; when, by the further development and unfolding of the cotyledons, it bursts and throws off the hull; thus completing the process of germination and coming up in a healthy manner. The point of a young plant called the neck, or dividing point between the root and the stem, being the vital centre from which the germ first began to develop into a new being, is so peculiarly sensitive that an injury inflicted at that point is always fatal. Now, it so happens that a pungent morbid agent, peculiar to the cotton seed, is always present at this sensitive point during the first stage of germination, which, if not removed from contact with the neck, never fails to poison—strangle and kill the plant. The short woolly fuzz or lint, which adheres so tenaciously to the cotton seed, is the most dangerous enemy with which the young plant, fraught with the wealth of argosies and the fate of nations, has to contend.

It proves fatal in two ways, by its irritative acrimonious effect in contact with the neck, and by being incidentally made to act the part of a ligature. When the radicle escapes from a seed which is imbedded, as many must be, standing on its larger end, or nearly so, it passes down between the hull and the lint, which, being strengthened by the adhering earth, forms a ligature of sufficient strength to bury itself in the growing bark, girdling and cutting off the incipient circulation in the delicate, recently organized texture which it embraces, and destroying the plant. Plants affected by this morbid condition to an extent which precludes the possibility of recovery, will, nevertheless, sometimes live till they are one or two feet high, and then break off at the point where the injury was inflicted, exhibiting the appearance of having never circulated the sap through the bark between the root and the top.

The process of germination in the cotton seed, when unobstructed, affords a natural, simple and sure preventive of the destruction threatened by its peculiar organization in the vital motive-power, generated by the growth of the stem before the cotyledons have acquired sufficient development, to burst open the hull and escape. This lifting power, if allowed to act under favorable circumstances, is sufficient to prevent the adhesion of the hull to the neck of the plant, which is the sole cause of the fatality attending young cotton. Plants killed in this way exhibit a swelling just above where the hull was attacked, with a black, dead, shrivelled appearance; or a ring, looking as if a thread had been tied around it, and frequently some fibres of the lint may be found imbedded in the depression; while below, the root is dead, without the appearance of having grown in proportion to the tap root. Sometimes, when killed by the ligature, the root continues alive and presents a swelled appearance just below the ring, as well as above.

In making examinations to verify this theory, too much reliance must not be placed on the appearance of stalks that are entirely dead and dry; as the rapidity of decay may have obliterated all traces of the cause of death. Observations should begin with plants that appear to be but slightly affected, just manifesting the impression of the cause, by a slight droopiness or "looking sick." Carefully remove the dirt from around the plant, down below

the point where the seed was deposited, and in most cases a hull will be found girdling the neck with a fibrous ligature; or pressing its pungent acrimonious fuzz against its side, where it produces a yellow or brownish spot, more or less extensive, the sure index of disease. If the morbid condition produced by partial contact is not too extensive, genial weather and good culture will sometimes enable the injured plant to recover; but it produces a weakly plant, especially liable to the attack of lice. Push on the examination to other plants that are nearly but not quite dead, and the same circumstances and conditions will be found prevailing to a greater extent, so that now the impending death may be clearly traced to its true cause.

The dying victim is still able to identify the assassin. Interrogate him and he will reply, "I have been strangled by this vile ligature around the vital point at which my life began;" or "my young and delicate skin, at a vital point, whence decay is easily and rapidly propagated, has been poisoned—corroded—ulcerated by this pungent hull which I have been unable to cast off." Finding this condition the invariable antecedent of the death of young cotton, let us inquire if either of the circumstances commonly alleged as the cause, sustains a similar relation. Is cold weather, or cold nights and warm days, an invariable antecedent of this dying off of young cotton? A moment's reflection will compel every observing planter to say "no."

Are either of these conditions sufficient to kill cotton in bunches? No; for if so they would kill rows or fields at the same time. Is hard ground, or loose unsettled ground an immediate antecedent? No; for these opposites exist in the same field at the same time, and cotton dies in both alike. But as the principal is identified, and the foul deed proven upon him could not have been accomplished alone, let us inquire who was accessory before the fact. Unquestionably the planter, who does not plant so as to *aid* and not *obstruct* the normal accomplishment of the germinating process, is the culpable accessory to the death of his cotton.

Planting too deep, or when the ground is too wet, leaving the surface of the ridge where the cotton is to come up covered with clods, or in such shape that dirt can be washed on to it by rain, is in common practice, and sure to obstruct the healthy coming up, by preventing the removal of the hull from the neck of the young plant. But it is said that the period and circumstances, attending the dying off of cotton this season, when compared with other seasons, have been exactly reversed. Generally the early planting suffers most. But this season the latest planting died most extensively, after the ground had become warm, and moist, genial weather prevailed, which should have made the seed come up quickly and grow off healthily. In what respect, then, did the late planting of this year differ from the late planting, and correspond with the early planting of other years?

The backwardness of the spring had somewhat delayed the beginning of cotton planting, which was still further retarded by the unprecedented April freeze, which caused the planting over of almost the entire corn crop. Some cotton, earliest up, and killed by frost, had to be planted over, and some land that had been long bedded, required to be freshened up. These things forced an unusual quantity of work into the period of cotton planting. An unusual quantity of rain with occasional light frosts, leading planters to fear a late killing frost; intimidated and rendered them unsettled as to the propriety of pushing forward the planting to completion. Thus, up to the last week of April, an unusual quantity of cotton remained unplanted.

Planters now began to grow desperate, and decided that whenever a mule could be got to the field without miring, the seed must go into the ground whether they ever came


out or not. Owing to the softness of the ground it was almost impossible to open a shallow drill, and thus the seed were imbedded too deep. The woolly coat of the seed easily combining with the plastic soil, the hull was left adhering to the neck of the plant, setting at defiance the natural operation of the germinal law. The result was what every one acquainted with the case must have been led to expect—the dying of the plants from the time they were a few days old, till every one seriously affected had disappeared.

Here, then, were the same circumstances and conditions preceding and attending the death of cotton at the late period of this season, which usually precede and attend the early planting, and which may be summed up in the few words—planting too deep in ground too wet.

This cause is sufficient for the effect, and no other cause can be shown to account for all the facts and circumstances. But in the present case it is one thing to discover the cause and quite another and more difficult to devise a remedy or preventive. How is this calamity to be prevented? Only by proper planting. By planting so as to afford every seed the fullest opportunity of fulfilling the important germinal law above explained. As the woolly coat of the seed is a great obstacle to this, and the chief morbid agent, the removal of it becomes a desideratum. In the absence of any available method of denuding the hull, it will answer the purpose to roll the seed well before planting. This, I know, is objected to as troublesome, but those who have practiced it for years find the trouble not at all commensurate with the beneficial results. Rolling has been somewhat extensively used as a means of making the seed distribute more readily, but its effect in preventing the adhesion of the hull is far more important. Seed intended for planting should be ginned as clean as possible, and rolled smooth by sprinkling them with water and rolling on a smooth hard surface of ground, till the woolly coat becomes solid. The addition of a little slaked lime, or dry ashes, facilitates the operation and affords a slight stimulant to the process of germination. But the most important element, indeed the *sine qua non*, of good planting, is to deposit the seed in a straight thin line, at the least depth that will secure sufficient moisture to swell and burst them; in a drill of such shape as to afford a tolerably firm line of dirt just beneath the seed, and open or yield easily upward, covering with finely pulverized earth, slightly compressed so as to retain the moisture which rises from below in contact with the seed. These difficult conditions and the important result, can be much more perfectly accomplished by a combination of mechanical devices than by hand. The mechanic is the divinity of modern progress, too long ignored by the cotton planter. Of all the industrial pursuits, none are so destitute of time-saving and labor-perfecting aids as that of cotton planting. To keep pace with other branches of agriculture, every operation from the planting to the pressing, must be performed by machines, capable in the hands of the common laborer of substituting his uncultivated and deficient intellect, doing more and better work, and accomplishing a larger and more reliable result than can be obtained by the old, tedious, unaided and uncertain means. Cotton is supposed to be, while young, a very delicate plant, and much is said about its liability to disease and disaster. But there is no seed more sure to vegetate, and no plant easier and more sure to live and thrive, when a judicious culture follows the fulfillment of its germinal laws, supplying the elements of its growth in constant harmony with its natural demands.

A. W. WASHBURN, M. D.

Yozoo City, Miss., September, 1857.

 All subscriptions to the *Southern Cultivator* begin with the January number.

### COMPOST HEAPS---MANURES, &c.

DR. DANIEL LEE—*Dear Sir:*—The very pleasant acquaintance and conversation with you which accident procured me, on the steam cars, induces me to address you at present, and at the same time to acknowledge gratefully the great pleasure and instruction derived from intercourse with you on that occasion. It will not perhaps be so agreeable a reminiscence, when you are told that it is the cause of your being troubled with the present communication; which, yet you will, perhaps, not consider a trouble, when it is considered as an opportunity of conveying useful information that is greatly desired and may be a great benefit to all.

My present object is to request of you, through your paper, to give some plain, very practical plan for the application of urine or night-soil, especially of urine and human urine to the manuring of the soil. Liebig and others state that the urine of one human being for a year is sufficient to manure richly an acre of ground. Now I could manure in this way, if there were any practical method of accomplishment, at least forty acres, with perhaps 20 or 30 more from other sources, which would be amply sufficient, if the manure were efficient in producing good crops, to keep up and improve my lands.

Now, the *desideranda* in the use of this manure is to deodorise without destroying efficiency, for the ammonia is not generated (as I understand) until the urine putrifies when it ought to be fixed, while the deodorising ingredients such as charcoal, powdered sulphate of lime, sulphuric acid, sulphate of iron, &c., it might seem would prevent putrefaction. Again, there is difficulty in properly distributing it over the land. Pray inform me whether there are any cheap instruments for drilling seed and manure, especially guano, both at the same time, or the manure separately, if necessary. Mr. John Kettlewell, of Baltimore, advertises manufactured guano, which is composed by chemical mixture (he says) of Peruvian guano and best phosphated guanoses; I would send you his advertisement if I did not suppose you already in possession. Can you recommend his mixture? Or can you suggest any other mixture with the Peruvian guano, which will supply the phosphates in which it is deficient, preventing at the same time the waste of ammonia in which it is redundant and liable from its volatility to waste?

As a practical answer to these questions will be of public utility, therefore, in accordance with the object of your journal, I trust you will not feel burthened in making a response to the questions.

I remain, with much respect and esteem, yours,

W. E. BAILEY.

Robertville, S. C., Sept., 1857.

ANSWER TO THE ABOVE.—As it might be difficult to procure an apparatus for distributing liquid manure, whether from persons or cattle, we suggest to our friend and others to pour all chamber ley, soap suds, and slops from the kitchen not fed to hogs, upon a *compost heap* that will absorb all the liquid and retain all the ammonia and other fertilizing gasses that may be evolved. The body of the compost may be decayed forest leaves, rotten chips, common mould, or even good loam or clay—all of which are excellent absorbers, and prepare night-soil for immediate use, when properly incorporated therewith. By digging out a basin and claying its sides in, none of its urine or other liquids will ever be lost by the leaching of the mass.

As to guano, it is doubtless best for every cultivator to mix his guano rather than buy any “manipulated” article. Our knowledge of the Peruvian and Mexican guano leads



us to recommend the use of one ton of the Mexican to half a ton of the Peruvian as better price and composition considered, than either separate. The Mexican gives the necessary phosphates and some potash and ammonia, while the Peruvian is rich in ammonia, and not wholly destitute of bone earth and alkalies. Our cities abound in elements of the best guano, which are now thrown away as a nuisance; but which ought to be returned to the soil whence they were taken. Public opinion needs enlightenment on this interesting subject. Let all fecal matters in villages and cities be viewed in a proper light, and the improvement of land by feeding and clothing the denizens of towns would no longer bring discredit on American agriculture. Every animal that eats food drawn from the earth should, in some way, make adequate restitution to the soil that supports him.

L.

### BEES AND HONEY.

EDITORS SOUTHERN CULTIVATOR—I am much pleased with the cut of Mr. V. LaTaste's Apiary, in your Sept number, and I hope some people will be induced to lay aside their old slovenly, unprofitable and bee-destroying course of neglect, and adopt one worth of the astonishing ingenuity and returning profits of the Honey Bee.

I really supposed I had answered Mr LaTaste's interrogatory, but he thinks not, and he again puts other interrogatories, which might equally (if answered,) prove unsatisfactory; he seems to think his questions ought to have satisfied me of my error; but questions do not usually embody strong arguments, or facts: and as I think, the spirit of controversy has entered his remarks, I must here, define what I meant, when I promised to answer any questions on bee raising; which was, to give information to those who in good faith desired it: and believing that a set controversy would do no good, I respectfully decline it. But I would say, to friend LaTaste, that if he should ever come out West, give me a call; and we will finish our controversy between ourselves; when I have no doubt, he will get a sound, but very welcome and hospitable drubbing. Now having declined controversy, I will add a few remarks, as a farther explanation of former remarks. Bees do positively collect pollen from flowers, as long as flowers last, to feed their young on; this I know, from close observation. They also raise large numbers of young bees, at all seasons of the year, while flowers last: But in March, (by far the greatest blooming month in the year,) is the main month for bees to raise about three-fold their usual number, preparatory for swarming; and during this month, the hives generally become lighter; this I know, from frequent weighing; yet the weight of bees are much increased; and I regard this, as clear proof, that bees collect but little, "if any" honey from flowers. Again, I know by repeated weighing, at the time hives generally become grown, when flowers are scarce, compared to March, that bees then collect honey rapidly, and then bees pay less attention to flowers; which two facts again prove, that bees collect but little, "if any" honey from flowers. Again; last March, the great flowering month, bees were so impoverished of honey, that many hives died in April, in this region.

Honey Dew, being the perspiration of leaves, gives varied taste to honey, according to soil, climate and variety of vegetation. All sweets in the honey stomach of the bee, undergo a change and are emitted in the cell, improved to honey, but not divested entirely of their original quality: so says every author I have read on the subject.

M. T. MCGEE.

Mount Elba, Ark., Sept. 1857.

### THE PHILOSOPHY OF SUBURBAN COTTAGE Homes.

EDITORS SOUTHERN CULTIVATOR—The Suburban Cottage has its idiosyncracies—its ethics, its philosophical affiliations, as well as that more abstruse study of human nature—with its metaphysical bamboos, upon which modern savans float to exalted sand-bars.

Man is essentially a seeker after happiness. Most men pursue the *Ignis fatuus*, in the fashion consonant to their individual conceptions, which are materially controlled by the prejudices of early education.

Immense wealth is the cynosure of one man's ambition. Profound knowledge, surpassing erudition, a subtlety in the mysterious alchemy of this soul, engrosses the mind of another. A reckless disregard of the conventionalities of society and a passion for pernicious vices, find occupation and a premature grave for a third—to travel the earth to its most obscure "corners"—to revel in the luxurious tropics,—to ascend the highest mountains, and explore the deepest chasm—to converse with every nation, and revisit home, tottering with accumulated years—frost-bitten with the chilling touch of time, consummates the terrestrial career of a fourth. All have accomplished the goal of their aspirations. Still that *ultima thule* of happiness is unattained. The grey twilight of the eve of life gathers and thickens around us; gloomy clouds portentous of mystery, intercept the nebulae of our waning star. The skeleton of the garnet of life is dimly seen in the distance, speeding his desolating course—memory is busy with the past, scenes, events, long forgotten—almost obliterated—are exhumed, and stand arrayed against the present; brightest amongst these latent reminiscences is the home of childhood. The talisman protecting our virtue, correcting our moral divergencies, soothing hours of adversity, and now, sweetly lulling us in the great last repose. We again enjoy our cottage home in the country—brief glimpse of Paradise—with its neat front yard, its single tree rising cool and refreshing from a gnarled trunk, *parti-colored* morning-glories bursting into life and loveliness from the womb of night, dispensing beauty for a few fleeting hours, then withering and transmigrating into the embryos of prospective morning-glories, to reappear in replenished tints. Roses rampant, scathing walls, peeping into cottage windows, twining round veranda pillars, flaunting in the *parterre*, prolific of bloom, redolent of *altar of roses*; happy, exuberant roses, irrevocably replacing the cottage home with our pure thoughts and pleasant memories; and herein lies the philosophy. The man who builds for himself and household gods, a tasteful house, and perpetuates on his ground plot, luscious fruits, glowing flowers and bowing herds, possesses all of happiness that earth can offer, and entails on his children, reminiscences that will prove safe guiding stars in all their future pilgrimage.

The idiosyncracies of rural architecture comprise purity of design, adaption to individual requirements, and convenience for subsequent purposes. Consonance and fidelity to contiguous scenery, general expression, as an art of beauty and taste. To maintain the individuality of these various requisites, and not disparage the harmony necessary to perfect completeness, solicits more ability than is bequeathed to the majority of so-called architects. A very beautiful metropolitan building would appear exceedingly awkward transferred to the country. The city edifice needs no other external embellishment than is exhibited on its facade. *Au contraire*, the rural domicile would be in unpardonable taste if denied ornamentation of its side and rear elevations. What is understood by decoration, is not the multiplying of brackets and cornices and such ephemera, but ornate effects and palpable expression secured by bold projections, broken and picturesque say line, artistic distribution of light and shadow,

and strongly defined angles. These are the supposed minor and apparently lost sight of details, which develop startling beauty, and add permanent elegance to the composition.

The architect who has mastered the science of the five orders, not infrequently becomes so inducted with their formal requirements, as to be incapable of making desirable departures to secure that *utile et dulce* and unity of expression, which peculiar situations imperatively demand, and without which, domestic architecture is extremely unsatisfactory.

Architectural *quid nuncs* ignore the humble cottage, and bestow their machiavelian talents on the more pretentious villa. Their enterprises in humble dwellings are sporadic, and when attempted, are of that *quasi* description, involving the eccentricities of a feudal hybrid or a stunted church. The rural habitation will not submit to too much taming and drilling and citified etiquette. It should partake of the romance and poetry of the landscape. It should in fact, be the *genius loci* of its neighborhood.

The Swiss Cottage with its umbrageous roof, its endless veranda, its simple decorations and grotesque finials, looks happiest suspended from a mountain side.

Grecian architecture, for which a great partiality exists, is decidedly unfit for domestic purposes, and only seems to be in proper character, reposing in some quiet back street of a city, there to afford shelter to the pedantic gentleman, who instills classics into reluctant urchins. Grecian architecture is too stiff to associate with trees. Its staid pillars, unbroken shadows, its heavy frowning entablature, looks uncongenial, uninviting, and seems as it would instinctively recoil from the caressing embrace of scant vegetation. People whose prejudices for rural houses in the Grecian style, are imperishable, should study art-consistency, and enliven their abodes with that fossil gardening, known as *hortus siccus*, literally dry garden.

The Tudor Gothic, bold, picturesque, expressive of purity, generously consents to abide on the lawn, smiling on the trees, and attempting to appear as much like a vast pendulous evergreen, as the dignity of its duties will permit.

The "Old English Cottage" dwellings, are apt illustrations of that poetic expression, which artists so frequently render in their landscape efforts—giving zest to a picture, implicating the house of man, with the milder romance of nature—but which, in technical phraseology, is styled rural adaptation. The old English, is a conglomerate of the pointed style of Henry VII, and the Tudor Gothic of his successor. Although mongrel and heterodox, it is not chaotic. It is so unpretending, so *nonchalant*, so cosy, and withal, has a promiscuousness unexampled by more classic details. Before the cot, mayhap several huge elms riot in a profuseness of branches and foliage, and shade, bequeathed in refreshing installments. Every convenient crotch and bough is appropriated by those "sovereign equatters," known as rooks; clamorous noisy things, but for which, they do expiation in the shape of savory rook pies. Auxiliary to the great fostering elms, are minor shrubs and trees of the ornamental and fruit bearing species, miscellaneous interspersed, forming labyrinths and sequestering the cottagers from the busy world without. The cot itself, is altogether overwhelmed with a drapery of ivy and other running vines, embracing each other quite lovingly. An oriel window begs for a passing notice, and a turfed doorway, with roofed porch, festooned with roses and clematis, modestly asserts its claim to a moiety of admiration. Perched aloft and looking down upon the furrow doorway, and enjoying the surrounding prospect, is that inevitable appendage, the dormer window; a mellow, hazy light is melted over the scene, softly blending present joys with future bliss. Philosophy! the acme of thy teaching is here, for what other attribute of earth so nearly approximates our conceptions of the

world beyond the tomb, to mortality a perennial fount of delight. Witness the philosophy of the old English Cottage Home, in the buxom gleesome little ones, whose voices cheerily ring out on the bracing atmosphere, whose gushing laughter reverberates in the contiguous maze, as the disport in the game of "hide and seek." Happy children make amiable adults. If this be not the philosopher's stone, that mythical knowledge, it is certainly a happy substitute.

C. REAGLES.

Columbia, S. C., Sept. 1857.

#### HILL SIDE DITCHING---NEW LEVELING INSTRUMENT.

EDITORS SOUTHERN CULTIVATOR—I send you herewith, a copy of the "Hinds County Gazette," containing an editorial article, announcing the invention by myself of an instrument, the object whereof, is therein set forth. I hope to have it ready for sale by the first of January next.

That it will fully meet the wants of the planters, who so much desire to attain a perfect system of "grade ditching and horizontal culture," I hesitate not to affirm. It is simple in construction—not liable to get out of order—easily and quickly adjusted for work, and certain in its operation.

To obtain an instrument which will insure *accuracy and facility* in its operation, is quite a desideratum, as any one will testify, who has experimented with the "rafter level," as it is called.

My instrument is of convenient size for handling, being not larger than a Surveyor's compass—can be taken to pieces and packed for transportation, can not wear out, and is not costly—thus making it within the reach of all.

So soon as the "level" can be got ready for sale, due notice shall be given, with place, price, &c., &c.

JOS. GRAY.

Raymond, Miss., Sept. 1857.

#### "The Grade and Horizontal Level."

As the citizens of all this region are abundantly aware, the greatest difficulty with which our farmers and planters have to contend, is the constant "washing" to which their lands are subject from the moment they are put in cultivation. Scarcely a plantation in Hinds county, probably, is entirely exempt from this annoying and perplexing fault; and, certainly, we have seen immense fields so completely riddled with "washes," as to be abandoned as utterly worthless. In many instances, even the most careful and scientific management has failed to secure broad acres from this destruction—a destruction not unlike that which awaits the sandbar when its front is presented to the dashing floods of the great Father of Waters.

This natural characteristic of our genial soil, is a source of immense injury and serious loss throughout the upland region of Mississippi, to the State as well as to individuals, and numberless have been the experiments, and great the mechanical and scientific research, to discover a practical and certain remedy. We now have the pleasure to announce, that an old citizen of Hinds county—and an eminently practical and clear-headed man—has after numberless experiments, and thorough tests, invented an instrument which is pronounced, by those whose opinions on such subjects are entitled to the utmost consideration, *the very thing* which will put it in the power of every man not only to secure his land from the "washing" process, but also place it in such condition as to justify him in applying to it, when it may become somewhat exhausted, any of the fertilizers of the day, with the assurance that they will remain where they are placed, and hence amply repay him for his outlay and labor.

The name of the instrument to which we allude, is "The Grade and Horizontal Level," recently invented by

Joseph Gray, Esq., of this village. It is designed, *mainly*, for the use of the planter, to enable him to adjust his "side hill ditches" on any desired grade, and to lay off his rows on a "true level," (as many think they should be). We are unprepared, at present, to go into a minute description of the invention, but we feel authorized to say, that it is the intention of Mr. Gray to get the instrument before the public at as early a day as possible. But little delay, we presume, will ensue, as Mr. Gray informs us that a model of the instrument has already been deposited with the Commissioner of Patents at Washington City. A beautiful drawing of the instrument, by Munn & Co., New York, has been procured by the inventor, and may be seen by any one who wishes to examine it, by inquiry at the Raymond post office. The instrument may be regarded as one of the most important inventions of the day, and cannot fail to be well received by the public, as it has already met the decided approval of many experienced planters, as well as that of civil engineers and scientific men who have critically examined the drawing. — *Hinds Co. (Miss.) Gazette, Sept. 23.*

#### BERMUDA GRASS.

**EDITORS SOUTHERN CULTIVATOR**—In the August number of your paper, there are some inquiries made by "W. J." of Jasper, Tennessee, respecting Bermuda Grass. He cannot have been a reader of the *Cultivator* for many years, or he would have seen enough on that subject to have convinced him, that he had better let it alone. He does not say for what purpose he wants it; if for a grazing lot, I know of nothing better, but before he gets it, I would advise him to consult his neighbors on the subject, see if any of them know any thing about it; if they know as much as I do, they will tell him of the danger he is getting into, or if he wishes it for a grazing lot, I advise him to prepare his land as you have directed, and then build a stone wall around it; dig down for a foundation, and then put his wall in lime mortar; this is to make sure that the grass shall go no further. There would then be danger, if he suffered cows to be on his lot, as they might carry some on other grounds when let out. This they could do by having some of the runners stuck between their toes or hoofs. And furthermore, I know of my own knowledge, that joints of the runners will pass through a cow and then take root and grow. I see that you refer W. J. to Col. Cunningham of Greensboro. I presume, that if you knew as much about this grass as Col. Cunningham and many others that I could name, that you would change your word, and say it is difficult to destroy and not easy controlled. I have seen thousands of acres of this grass, but never have seen one acre tall enough to make hay to any advantage. You speak of its being propagated by clumps of sod containing roots; this would do, but a much more convenient and cheaper plan, is to take only the runners, trim all the roots off, cut those runners in short pieces—they may be sent by mail many thousand of miles—then bury them in moist earth and they will soon begin to show signs of vitality. It is the runners of this grass that we dread, as to the roots, it is no more than other grass, only every joint of the runners, if it touches the ground, will take root, which is the way it spreads. The joints are from 1 to 3 or 4 inches apart, according to the strength of the land and the seasons or moisture; in good land, and good seasons it will spread about three feet or more in one season. I consider it so hard to destroy, that if I were to have a bit of land dug up where there is a thick stand of it, and so thoroughly pulverised as to pass it through a sieve, I should expect to see some make its appearance shortly after. It will make but little difference what time of the year those runners are gathered and transported: as soon as received, bury them, and possession of the land is all

the right wanted; gullies will be stopped, and branches turned, &c., &c. I write this in part for the benefit of a brother I have in Virginia, as I have lately understood that he is wanting to get some to make a trial of it as grazing grass. I could say a great deal more on this subject. We all admit it is a good grass for grazing and preserving land, there is no chance of washing those runners: they do not run under the land, but on the surface, taking root at every joint, and thrives much the best on land recently cultivated. I could tell that I have more than a 150 acres in this grass under fence for pasturage; and I could tell that at some times I have all my hands employed, cleaning off spots in other fields that we cannot afford to give up. It appears some times that we have got those spots entirely clear, but after a while, there is a plenty ready for another cleaning. Yours respectfully,

JOHN FARRAR.

Atlanta, Ga., Sept., 1857.

P. S. After saying this much, respecting the difficulty of destroying this grass, I am ready to admit it can be done, but at such an expense or outlay of labor, that but few will try it, and if tried at all, it will be on small spots. It must be covered by something besides earth, and that so close and thick as to exclude all light and air.

#### THE GRAPE CULTURE.

(Concluded from our last, page 301.)

##### WINE MAKING.

MOST of the wine made in Georgia hitherto has been made in small quantities and for domestic use, after the plan of Herbermont, of South Carolina. Grapes should be gathered in dry weather if possible, and after the dew is off the ground. There is a considerable difference in the quality of the wine in favor of their being gathered dry. Grapes should be perfectly ripe before they are gathered (they should be gathered in buckets); but as some kinds do not ripen evenly, all the green berries should be picked off and laid by for vinegar. It is the practice of some to pick the ripe berries and mash them in a trough or barrels, and throw the entire contents into a stand to ferment; on a large scale, however, it is best to throw the bunches into the troughs (after the unripe and faulty berries are removed) and mash them gently with a pestle, and then put them in the press and squeeze out the juice and put it into stands or vats, the tops of which must be covered with a cloth to prevent flies and insects from getting into the must. Pressing the grapes on the comb or bunch imparts to some wine a peculiar and agreeable flavor. After the must has been twenty-four hours or less in the vat, and when a cone is forming in the centre, then draw out the must, and to each gallon of must, add (to Warren or Devereux) about one and a half pounds of sugar; to Scuppernong, Catawba, Isabella and Muscadine, two pounds of sugar—good Muscovado or clarified sugar will do for the red wines, and crushed or loaf for the white. Then fill the casks or demi-johns to within three inches of the bung hole, so that when the violent fermentation occurs the scum may not flow over; after the violent ebullition is over, say on the second or third day, fill the casks to near the bung so as to bring the scum to the top that it may be removed with the handle of a spoon. Continue then to fill the cask to the brim, and keep a cloth over the bung to keep off insects. When the fermentation ceases, which will be in three weeks or more, put on the bung loosely and examine the wine occasionally and if the fermentation recurs, then fill up the casks with old wine, and so continue every few days till the wine becomes perfectly still. Then bung up the casks tight and let it remain till the next spring, when if any evidence of fermentation is observed, fill up the casks with old wine; bung up tight and let it remain to

mellow, or it may be drawn into bottles; or re-drawn into casks or demijohns and kept for two years, and then bottled for use.

#### MASHING.

There is a different process for making wine practiced in Ohio than the foregoing, which may not suit our climate in all its particulars. It is here subjoined, according to Reemelin:

"The practice most recommended is to mash the berries upon the stems effectually, and any method which accomplishes this without too much bruising the comb or crushing the kernel, may be adopted. The more expeditiously this is done, and the sooner the grapes can be got to the press without unnecessary exposure to the atmosphere, the better. (Approved.)

#### PRESSING.

"After the grapes are mashed, they should be transferred as soon as possible to the wine press. The sap or juice which first flows from the grapes makes the best wine, and that which is last expressed is somewhat inferior. In this country, the manufacture of wine is so much in its infancy, that very few persons attempt to preserve the nice distinction in the quality of wines which prevails in Europe and the wine is generally thrown promiscuously into the cask. (True.) Cleanliness and dispatch in mashing and pressing cannot be too strongly enjoined. Grapes should be mashed and pressed the same day they are gathered, and the juice transferred to the cellar as soon as possible, and not later than the evening. The casks and vats should be all clean and prepared before operations are commenced. The size of these should be equal to the quantity of wine expected to be made. The larger the quantity fermenting in one body, the steadier is the fermentation and the better the wine. A wine house and a cellar underneath, is desirable in every vineyard of a size sufficient to justify the expense. (All very good.)

#### TREATMENT OF THE WINE.

"The young wine fresh from the press is filled into the casks in the cellar. These casks should be placed upon scantling or scaffolding, and not upon the ground in the cellar. (This is a necessary precaution.) They should be filled only three-fourths full. The wine will soon commence fermentation, generally within the next twenty-four hours. The mass bubbles, as the cider does, during fermentation, and if the casks were entirely filled, much of it would run over. It ejects carbonic acid, and also many of the finer aromatic essences escape.

"Many devices have been tried to retain these latter. The process adopted in making champagne is for the purpose of securing this great dissideratum, and thus the greater part of the carbonic acid and these finer essences are retained."

In this climate, even with the advantage of proper wine houses and cellars, it is very doubtful whether filling a cask, (with wine to ferment,) only three-fourths full, would produce good wine; it certainly would make excellent vinegar. Herbeumont strongly recommends that the casks or vessels containing the must, should be kept full during the process of fermentation, having ascertained from experience, that any considerable vacuum in the cask would cause the wine to run into the acetous state. To preserve the fine qualities of the wine while in a state of fermentation is all-important, but some of these essences will escape under any treatment; it is best, therefore, to avoid extremes. To fill the cask then just full enough to retain all the bubbles and scum within the cask during the earlier part of the fermentation, and keeping the bung hole covered with a cloth with a moderate weight over it, and subsequently gradually to fill up the cask, and finally to remove the scum when the fermentation begins to subside. This is probably the safest course, but experi-

ments can be made on the Ohio plan, to ascertain if it will succeed in our climate.

Reemelin's directions continued:—

"The securing the finer essences of the wine, may be attained sufficiently for our purpose by a simple contrivance—

"A tube of block tin having two arms is inserted into the bung an inch or more, with the shorter arm immersed in a crock of water, resting on the cask. As soon as the fermentation shall have fairly commenced, the carbonic acid will escape through the water. As the fermentation and its consequent pressure subsides, much of the carbonic acid and many of the aromas, so essential to fine flavored wine, are retained. Great advantage is also gained thereby in rendering it less necessary to keep watch over the fermentation, and to close the cask as soon as the fermentation shall have ceased; the external atmosphere being at all times excluded, the oxygen of air cannot penetrate to the fermenting mass. (But by this mode, the scum and trash on the top of the wine remains there, till the wine is drawn out! and besides, should the water be drank out of the crock by rats, or the crock by accident be knocked off the cask, in that case the air would rush into the cask and the wine would become sour.) When this plan is not adopted, the bung must not be fastened during the fermentation, as this would cause the cask to burst. As soon as the fermentation is over drive in the bung tightly. (What follows is similar to the Herbeumont mode, with slight variations, which are approved.) After the more violent fermentation is passed, fill the casks brimfull, and for four weeks re-fill at least once a week, and afterwards till late in the spring, re-fill once a month. In Europe, where wine is a chief element in the food of families, one cask is kept for daily use, and from this the other casks are replenished. In any cask that cannot be kept full, the vacant space should be burned out with brimstone, as hereafter described, at least once a month. The object of this being to keep it perfectly sweet.

Empty wine casks should be thus burnt out once in each quarter of a year, especially just before filling or immediately after emptying them. Before burning, the casks should be thoroughly washed out. The brimstone will not burning unless the casks are nearly clean.

#### PREPARING THE BRIMSTONE.

Put common brimstone in a pot over a slow fire, melt it slow, or it may ignite. When melted, draw through it strips of stout paper, an inch wide and a foot long, and hold them in the air a few minutes till the brimstone hardens.

To burn out a cask, take out the bung, and after setting fire to one of these strips, quickly insert it into the cask, and drive the bung home upon it, so as to hold it suspended while it burns. Then dip a sponge in good brandy, fastened to a wire, and insert into the cask as with the brimstone slip.

In March or April draw off the wine into other casks. About the time that the grape vine is in bloom, the wine undergoes another fermentation in the cellar again forming small lees. Wine becomes generally clear a few weeks after it is put into the casks in the fall, some persons then draw it off. (It is preferable to do this in the spring) This gives the wine a milder taste, but at the expense of strength. Our wines being naturally strong, this may be done without injury. Wine may be drawn into bottles in the fall when one year old, but it will improve more by letting it remain in the casks two or three years. It is observed that in the foregoing process there is neither sugar nor brandy used in making the wine—every effort then should be made thus to produce it; if it can be done in our climate; and it may succeed when we come to have (as they have in wine countries) cellars from 15 to 20 feet deep, and arched with brick or stone. Hence, their wines

are preserved from the extremes of cold in winter and heat in summer.

#### CHAMPAGNE.

While the wine is in a state of fermentation, about the fifteenth or seventeenth day after it is put in the stand—and all things being ready, bottles, velvet corks compressed and fitted to each bottle, twine and wire cut to the proper length, then put a wine glass full of what in France is called "liqueur," (composed of rock sugar candy and good old wine well refined,) into each bottle, and having a sizeable funnel covered with flannel to strain the wine, one person pours the wine and fills the bottles to within two inches of the mouth—then another person takes the bottles and puts on the corks and after two or three dozen, or a sufficient quantity of bottles are filled, the corks must be driven in tight, leaving about half an inch of the corks out, then tie on the twine and wire to the corks. The bottles may be cemented the next day, covering the cork all over—then lay the bottles on their sides in a cool cellar. By this mode, champagne for domestic use is made; it will be fit for use about Christmas, and will keep till spring, and sometimes for twelve months.

Champagne intended for export, or keeping a long time is manufactured by a very different process, which is tedious and expensive, and requiring much knowledge and practice as follows:

Wine intended for champagne, after going through the fermentation is bunged up tight and fined to as great a degree of brightness as can be obtained, and so kept till the following spring. In the month of March, about the time the grape vines begin to put out, bottle the wine, and when in bottles a second fermentation is induced by putting into each bottle a glass of what is called in France "liqueur," (composed of rock sugar candy and good old wine, either red or white, as may be desired to produce pink or white champagne. This liqueur is produced by putting into a bottle one-fourth candy and three fourths wine, when the candy is dissolved, strain the wine so as to have it perfectly bright.) This second fermentation produces a fresh deposit of sediment or lees, however bright the wine may be when bottled. In this process the greatest attention is necessary, and the bottles are closely watched, the temperature of the weather being carefully regulated, to promote or check fermentation; yet thousands of bottles explode, so that at least ten per cent. is charged as a cost of manufacture; in seasons of great and sudden heat, 20 or 25 per cent. are broken.

When the wine, after clouding with fermentation, begins to deposit a sediment, bottles are placed, with the necks downward, in long beds or shelves, having holes obliquely cut in them so that the bottoms are merely raised. Every day a man lifts the ends to each bottle and after a slight vibration, replaces it and little more upright in the hole; thus detaching the sediment from the side, and letting it pass towards the neck of the bottle. This is done for some time, until the bottle is placed quite upright, and the sediment is entirely deposited in the neck of the bottle, which is then ready for disgorging. In this process, a man holds the bottle steadily, with the mouth downwards, before a recess prepared for the operation; cuts the wire when the internal force drives out the cork, and with it the foul sediment. Another cork is ready to replace that blown out, the bottle is filled from the same previously purified wine, and again stacked. A second disgorgement is always necessary, and sometimes a third. If the original wine is made without sugar, then loaf sugar must be added at the last operation suitable to the taste. It may be observed, that in the last operation the cork should be well compressed, before they are driven into the bottles, then tied, wired and cemented or sealed. Champagne must be manufactured in cellars properly made for the purpose. Any grape will make champagne but the Scuppernon is preferred to any other.

#### GENERAL OBSERVATIONS AS TO MANURES.

Throughout the granite region of middle Georgia, and other similar geological formations—salt and lime in the proportions previously indicated should be incorporated into compost manures for the vine. In lower Georgia, including the tertiary formation of the Pliocene, older and newer Miocene and Eocene periods, neither salt nor lime are needful to enter into the composition of manures.

In the upper or northern section of Georgia where the blue lime stone occurs, there is no need of lime entering into a compost manure—salt may be useful. Stable manure, well decomposed, having been kept under shelter and pulverized, may be added in small quantities say ten per cent, and applied on cold damp localities. Guano is considered altogether too forcing for the vine. D. P.

Mount Zion, Ga., 1857.

#### SALT—ITS USES AND MANUFACTURE.

DR. LEE,—Dear Sir:—I address you, as one of the Editors of the *Southern Cultivator*, to be sure and bring before you the subject matter of this letter.

I take DEBOW'S *Review*, and in that, (like your valuable periodical,) I find many pieces, worth the year's subscription. In the August number, I find in the second article a piece, "Salt, its Uses and Manufacture, &c., by Wm. C. Dennis of Florida, which I consider very important to our people.

Now, if half that is said, in that piece, is true: and I must think it is; for I have long since been dissatisfied with the use of the great bulk of Liverpool salt, as imported, and in use with us, having with my greatest pains failed in saving good sweet bacon, &c., &c., with it.

Therefore, will you not make copious extracts from it, in your next *Cultivator*; if you do not publish the whole; that our people may open their eyes, as to the important article of salt, they are using. Thus bring the attention of some of Charleston, South Carolina, or Augusta Merchants, to the necessity of importing, or supplying those who wish to make the change with some of those salts, which the author of that piece recommends. Let him give the assurance, he has that pure Solar Salt, so much recommended.

I do not know that you could do your agricultural and farming friends, a better service, than throwing the lights, about good and bad salt, in saving their bacon, beef, butter, &c., &c., before them. It strikes me, this is peculiarly befitting the pages of your journal.

Yours truly, JOHN CUNNINGHAM.  
Greensboro, Ga., Aug., 1857.

SALT being an article of universal consumption, it deserves our best attention; and without copying the lengthened paper referred to by our esteemed correspondent, we will endeavor to place its material facts before the readers of the *Cultivator*.

The author of the essay in question, is, apparently, engaged in the production of salt by solar evaporation at Key West, and labors to make out a strong case against the use of boiled salt for curing meat, salting butter, and other domestic purposes. According to the authorities quoted, there is consumed in the United States twenty-one million bushels of salt a year, of which, seventeen millions are boiled, and four millions made by solar evaporation. As a general thing, there can be no doubt, that Florida and West India salt, which is made by solar heat, is purer and better than Liverpool, New York, or Virginia salt made in boilers or pans; but there is good reason for believing that, when properly manufactured, the latter kind is unobjectionable.



As white sugar is purer than brown, there has grown up a mistaken notion, that salt is to be judged by the same standard, and its purity estimated by its *whiteness*, particularly for table use. This error in the public judgment compels the producers of table salt, and sometimes that put up in barrels, to whiten their staple by the free use of *lime*, where nature fails to supply lime in the brine. So soon as a more enlightened public sentiment shall demand a purer article of salt for table use, and for salting butter and meat, manufacturers will at once meet the wants of the community. But so long as the latter demands a salt as white as recently slaked, pure lime, in place of the diaphanous crystals of chloride of sodium, this morbid taste must and will be gratified, no matter what damage accrues to consumers. Dear bought experience has taught many dairymen in New York, and house keepers everywhere, that some knowledge of common salt is very useful, by which to judge of its purity; and this applies as well to sea-salt evaporated by the sun, as to that boiled from natural brine. Lime, magnesia and sulphuric acid are the most common foreign elements in salt. Sulphuric acid combined with soda, forms glauber salts; with magnesia, it forms epsom salts; both of which part with their water of crystallization, and form a white dry powder, if long kept in a dry atmosphere. Salt that has any considerable amount of either, or that has parted with its chlorine, *effloresces*. Sulphuric acid combined with lime, forms gypsum—a salt that abounds in the salines at the Onondaga Salt Works.

When the base of lime, called *calcium*, and that of magnesia, called *magnesium*, combine with chlorine, salts are formed, which give to common salt an undue attraction for water, and cause it often to *deliquesce*, or dissolve in a humid atmosphere. By washing salt in a perfectly saturated solution of the same mineral, so that it can dissolve no more chloride of sodium, it is easy to remove all the more soluble salts of lime and magnesia from any salt one wishes to apply to his meat, or butter. Gypsum being only sparingly soluble in water, always falls as a precipitate in strong brine, and remains as a powder when the pickle is poured off. It is on this account that lime is used to separate sulphuric acid from brine in the manufacture of salt, in some places. Copperas is sometimes troublesome, which is the sulphate of iron; alum may also be present, which is a sulphate of alumina and potash. The chemistry of salt-making and that of salt in preserving animal substances, ought to be as familiar to intelligent Americans as bacon and eggs; but some how the popular understanding is slow to appreciate the value of this kind of information. There lies before us nearly one hundred analyses of different varieties of common salt, which appear not to have fallen under the observation of the writer in Dr. Bow's *Review*. After stating correctly the natural strength of the brine at Syracuse and Salina, he says; "I have no means of knowing the strength of the brine in the Salt Basin of Kanawha, but think it is generally stronger than that of New York:—

Thomas Spencer, Esq., in a communication from Kanawha, to the Superintendent of the New York Salt Works, in 1847, says the brine in the former, is on an average 32 per cent of saturation; while that of the New York salines, as the writer knows, is 73 per cent. In 1853, Prof. James Hall, State Geologist, visited the valley of the Kanawha, and gave an interesting account of its Salt Works. They contain at that time, from one and a quarter, to three and sixty eight per cent of chloride of calcium; while fine samples obtained from Silville, near Abingdon, Va., made by artificial heat, were found on analysis *purer* than any fine samples of salt produced by solar evaporation.

In the works at Kanawha no lime is now used to clarify the brine; the salt annually produced (nearly three

million bushels) gives much better satisfaction than it formerly did. Mr. DENNIS (the writer in the *Review*) travels some distance into the past history of salt making near Liverpool, when he copies five pages of an elaborate philippic writer by Dr. MITCHELL, of New York, in 1803, deprecating the use of Liverpool salt in this country. It is more to the purpose when he quotes Dr. BROWNIGG, of England, to the effect that salt is in some degree decomposed at a boiling heat, its chlorine being volatilized, and driven off, leaving the soda to combine with carbonic acid in the atmosphere, if no stronger acid be present. So far as this result is attained in boiling, it is unquestionably injurious; but as salt seldom effloresces, or otherwise indicates an excess of soda, the evil, we apprehend, is not so common as the presence of lime and magnesia. KNAPP says: "Of all these salts, chloride of magnesium is that which has the greatest influence on the produce, both on account of its deliquescence in the air, and its highly saline taste. For, whilst chloride of sodium never attracts moisture from the air, it is well known how rapidly ordinary salt becomes wet in damp weather; this is still more evident when the salt has to be removed to a distance and is proportionally more rapid when it contains a large quantity of the chloride of magnesium."

The above remarks are copied from high authority, that the unscientific reader may know that the more his salt attracts dampness the impurer it is; although a salt of magnesia is less injurious than one of lime in curing meat. If salt is decomposed in boiling, or in the act of crystallization, as stated in DeBow's *Review*, on the authority of Dr. BROWNIGG, it is remarkable that the learned author of Chemical Technology should omit to mention so important a fact, in discussing the subject. Nor do we find in the standard works of ROSS and FRESNUS any mention of this property in common salt. Chlorine may be separated to a small degree by moderate heat; but if entirely expelled, nothing could be easier than to produce any desirable amount of pure soda by simply heating salt in iron pans and thus expelling the acid or chlorine with which it is chemically combined. Heat requires the assistance of other agencies in order to produce soda from common salt.

The preservation of meat, butter and other animal substances by the use of salt, and the like phenomena witnessed when salt is used to pickle beans, cucumbers and other vegetables, deserve our best consideration. When a failure is made in any of these operations, the fault is quite as apt to lay in the ignorance or defective judgment of the manipulator, as in the salt used by him. So much depends on the temperature of the atmosphere, and on the quality and condition of the article to be preserved, that no uniform rule can be safely laid down to guide the housekeeper. He should carefully study the *principles* involved, and act accordingly. Over-salted beef is nearly worthless; while under-salted will soon become tainted and spoil. In warm weather, cut it into slices as for steaks, rub over with dry salt in moderate quantity, and dry as speedily as possible, when it is wished to preserve it for future consumption. Salt operates to contract all the cells and tubes on the surface of meat, and thus exclude from the flesh all atmospheric air; nor can chemical changes within the meat occur as readily when the gases formed cannot escape. If this insulation were perfect, it would be practicable to keep meat quite fresh except on its surface. But as it is not, *curing* is needed to complete the curing. To avoid the depredations of flies and other insects, we keep pork and beef under brine as much as possible. This way of preserving meat, requires one to understand the art of keeping brine pure and sweet. This object is greatly promoted by having a deep dry well, in our Southern climate, or a cool cellar, which answers every purpose in the Northern States. Before a barrel of pork or beef is fairly cured in brine, the latter should either be

once or twice changed, or well scalded, skimmed, and settled, to remove all impurities. This last practice Mr. DENNIS condemns, but whether with good reason we doubt, as at present informed. We have heard old and experienced packers say that scalded and purified old brine was better than that made from salt before it has been used. We have tried both practices and never saw any appreciable difference in the result. By too much re-salting, a large share of lean meat may be dissolved, and separated as gelatin and fibrine. Cheese is often nearly ruined by an excess of salt; and butter some times fares no better.

Poor feed for cows, and a warm and damp climate are the main obstacles in the way of producing first-rate butter and cheese at the South. Milk, cream and butter should be kept as cool as the coldest spring or well water will make them, in all hot weather. Salt ought to be thoroughly worked into butter with a butter ladle, at the rate of an ounce of salt to a pound of butter; while the milk, or fine particles of curd, should be worked out. When packed down to keep, both butter and meat should be as much excluded from the air as possible. A stone jar filled with butter, and that covered with thick stout paper saturated with beeswax, or suet, and tied down tight, will keep butter in a cool place, if it was properly manufactured. We are greatly in favor of dry wells deep enough to be used by the aid of a windlass, in place of many steps, and the labor of going down into a deep hole in the ground. The mean temperature of the earth is not reached in this latitude above 28 or 30 feet. We keep milk at 63 degrees, and find it cool and delicious to drink, yield cream or make butter; although we have as yet no well expressly for the purpose. With a trifle of surface salt, fresh meat may be kept a week at 63 degrees without the smallest injury. Our well for the supply of water is large, and nearly 60 feet in depth, and answers in place of a dry well till the latter can be conveniently arranged.

There are many readers of the *Cultivator* who can furnish more valuable instructions for curing hams, and other Bacon than the writer; and they will greatly promote sound domestic economy by giving the public the benefit of their experience.

L.

#### PLOWS---GRASSES.

To Dr. M. W. Philips:

I see you speak in exalted terms of the "Brinley Plow." Please inform up where said plow is to be had, and at what price.

As you are experimenting with the Grasses, I would call your attention to a winter grass in the possession of Dr. Taylor, of Montgomery, Ala. The Dr. says, it was brought from North Carolina many years since. It has no seed, but propagates from the roots like shallots, consequently has to be taken up and divided in order to spread it. It remains green both summer and winter, as long as it is kept grazed or mowed down. If there is no established name for this grass, I propose to call it the "Taylor Grass."

As the Dr.'s plantation is near Mount Meigs, he or Col Carter could conveniently send you a few bunches for experiment. It is not for sale.

Yours, J. L. MOULTRIE.

Union Spring, Ala., Sept., 1857.

THE RIGHT SPIRIT.—*Editors Southern Cultivator*—I have just read the proposition of Mr. G. D. Harmon, to enlarge the *Cultivator*; it fully meets my approbation, and you may put me down for one of the 5,000, or two if necessary. I will try and see what I can do towards getting new subscribers.

Yours, &amp;c.,

R. G. HEWLETT.

Oxford, Miss., Sept., 1857.

#### BRANDY FROM THE CHINESE CANE.

EDITORS SOUTHERN CULTIVATOR—In compliance with your request, I send you an account of a small, but interesting experiment I have just made in distilling the juice of the Sorghum. On the 10th and 11th September, I ground 75 gallons of juice, which was put to ferment in two ordinary molasses barrels, of which the heads had been knocked out. The weather was extremely sultry—the thermometer rising to 90° in the middle of the day. On the 12th the fermentation was very brisk; on 14th and 15th it seemed to be at its height; on 17th it had subsided. I then drew the wine into a large close barrel, which was afterwards hermetically closed. The juice underwent a slight fermentation in this, for about 24 hours, when all was again quiet. On the 22d I commenced distilling. The wine had a fine vinous smell, but its taste was somewhat sour; this is not the result of acetic fermentation, but is probably the natural taste of the wine. The 75 gallons gave 12½ gallons of low wines at 30° of Gay-Lussac's Alcometer (the meaning of this is that the low wines contained 30 per cent. of pure Alcohol.) On the 24th I redistilled these low wines, and I give you the result:

The 1st half gal. (tested by G.L.'s alcom.) showed 78 per cent. Alcohol				
" 2d	"	"	"	78½
" 3d	"	"	"	77½
" 4th	"	"	"	77
" 5th	"	"	"	72
" 6th	"	"	"	67½
" 7th	"	"	"	59
" 8th	"	"	"	55
" 9th	"	"	"	40
" 10th	"	"	"	40
" 11th	"	"	"	25
" 12th	"	"	"	25 and less.

Total, 6 gallons; showing 63 per cent. of Alcohol.

I will here state that proof brandy in England contains only 50 per cent. of alcohol; this, therefore, having 13 per cent. more alcohol. The ordinary brandy of commerce seldom contains more than 40 or 45 per cent., and common whiskey, although much more fiery to the taste, shows, by the same instrument, only 35 per cent. of alcohol. By adding a gallon of water to these six gallons at 63° we would have seven gallons of ordinary proof brandy. I am unable to say what it will be worth per gallon, but even at \$1 these results will prove more profitable than molasses at 50 cents.

Seventy-five gallons juice, at 7 gallons for 1 of molasses, will give nearly 11 gallons, which, at 50 cents, would make \$5 50; while the brandy, at \$1, would be \$7.

But surely it would bring at least \$2, which would then give a large surplus in favor of the brandy. Thus, when 1 acre of Sorgho would yield 200 gallons of syrup worth \$100, it would give us in brandy 127 gallons, worth \$254.

Allow me, through your columns, to refer to an article in the Oct. number of the *Cultivator*, by John W. Reid, and to one by the same gentleman in Mr. Olcott's late work on the Sorgho, in both of which he affirms that the Sorgho syrup when fermented will yield gallon for gallon of alcohol; that is, 1 gallon of syrup will yield you 1 gallon of alcohol. Surely there must be a mistake there; for syrup must contain a certain proportion of water and of coloring substance which remain in the still after the alcohol has been extracted; and how 1 gallon can furnish 1 gallon in bulk in spirits, besides a half gallon of residue, or literally become 1½ gallons, I cannot understand. Will that gentleman please explain?

A. C.

Woodward, S. C., Sept., 1857.

REMARKS.—With the above, we received a bottle of very excellent and strong Brandy, or rather Gin, for which friend CARADEUC has our thanks. He is entitled to much praise for the very able manner in which he has conducted this and many other experiments in rural economy;

and his communications being strictly *practical*, are always of great value to our readers. *Alcohol* will probably be one of the most profitable product of the Sorgho; but we sincerely hope that it will be manufactured entirely for mechanical uses, as there is sufficient "blue ruin" in the world already!—Eds.

#### SORGHO EXPERIMENTS IN SOUTH CAROLINA.

A correspondent at Ridgeway, S. C., writes us under date of Sept. 8, as follows:

EDITORS SOUTHERN CULTIVATOR—The three copies of your pamphlet were duly received, and I have found them of service to me when experimenting with the cane. I have procured a Saccharometer from Dr. Battey, but thank you for your kindness in informing me where they could be obtained.

I have not been able to make more than 1 6th of syrup tested by the saccharometer; it is true, I can get 1 gallon of syrup from 5 or even 4 gallons of the juice, but it is not of a proper consistency. The syrup made by the saccharometer is of the consistency of honey, five or six months old and resembles it as to color. As you may take an interest in this new candidate for public favor, I now give you the results of several experiments I have made. I use an iron cast mill, and two sugar kettles each capable of holding 150 gallons; they are properly fixed or set in furnaces. The several kettles so arranged that I can shut off the heat at pleasure.

I first expressed 54 gallons of juice, from cane the heads of which were perfectly green, and had to boil for eight hours, and got 4½ gallons saccharometer tested syrup. I then expressed the juice from cane that grew on not quite 1-4th of an acre. The cane was matured; that is, the lower seed of the head had passed from the milk to the dough state; and boiled 7 hours and made 29½ gallons of syrup, tested with the instrument. I then expressed the juice from matured cane that grew on not quite half an acre and got 49 gallons and 3 quarts of syrup, tested as the other. The ground was not very rich; would have made 10 or 12 bushels of corn to the acre. This last was boiled 7 hours and the proportion of syrup to juice varied from 1-6th to 1-7th.

I have three acres of the cane growing on a very poor piece of land, which resembles a cane brake more than anything else that I can think of, to compare it to, which will be ready for the mill next week; it will yield at least 30 or 35 bushels of seed to the acre.

My hogs are fattening on the bagass, and my negroes are delighted with "home made molasses," as they call it.

I am, very respectfully, your obt. servant,

H. C. D.

P. S.—I do not use lime or anything else to correct acidity or clarify the syrup, but skim very freely.

#### TREATMENT OF HORSES—CISTERNS, &c.

EDITORS SOUTHERN CULTIVATOR—I have often felt the desire to contribute to your varied and agreeable columns, deeming it a simple act of duty to *sow* a little where I have gathered a good deal. All agricultural topics are so suggestive, however, that I have doubted my ability to condense a communication to the proper "specific gravity" of a newspaper article, a pneumatic process in which some of your correspondents are certainly proficient, and if you should think the following worthy of the space which it may occupy, I will feel encouraged to try again:

"How do you keep your horses so sleek?"

A question frequently propounded to the undersigned, which he hopes herein satisfactorily to answer.

No people are more keenly alive to the value of a good

and abundant *water* than we of the South, yet a simple sketch of our practice in this particular would be a trenchant satire on our whole economy.

One farmer, for months in the year is satisfied to *haul* his water in barrels, for miles.

Another for the whole of his natural life hauls his eighty feet perpendicularly.

A third expends a small fortune on an Artesian well, which, completed, leaves the water one hundred feet below him—furnishing a deal of hard work to the pennyworth of *hard water*.

Another, suggests an anecdote. A friend of ours, on a visit to one of the most worthy of the old school gentry, overheard, at his departure, the following between his host and the stable boy:

"Ned, did you give Mr. C.'s horse plenty to eat?"

"No sir, not so mighty much to *eat*, but I gin 'em plenty to *drink*."

The fact that the lane from stable to water was a very pretty quarter stretch, and that the "little Baileys" of the stables are *rather* fond of equitation, readily accounted for the liberal treatment of C.'s horse, as well perhaps as for the shaggy (not to spell it with a "b") appearance of his entertainers.

Another, perhaps, sleeps in peace with a "B-r-a-n-c-h in his lot," said branch consisting of a sand bed with (or without) a film of water on top.

Representatives from each of the above have had occasion to ask the doctor how he keeps his horses so sleek.

Simply, my good neighbors, by giving them, in the *cheapest* manner, the most abundant supply of the very best water.

"Ah! to be sure, that is a fine bold spring of yours."

Yes; but I don't give my horses ice water.

"Prefer a *well*, perhaps?"

No sir—well water is too expensive.

"How then?"

I use a *cistern* for my stock. And just here it binds. There seems to be a general antipathy to cisterns. Perhaps it arises from a lack of intellectual suppleness, a kind of epidemic mental rheumatism prevalent in the rural districts, a want of that digestive capacity, which can suck success even from a failure, and find "experience" among the fragments of a humbug.

Or it may be owing to the vague idea of enormous expense which attaches to such structures. We have heard of the gigantic reservoirs of the East, where an acrid climate and dense population compel the storage of a supply for years—a climate where the "dew drop" is still the crown jewel of poetry, and the "broken cistern" the last symbol of wretchedness; where the Satrap still boasts of Abana and Pharpar, rivers of Damascus, and where

"The rude and savage man of Inde,  
At the first opening of the gorgeous East,  
Bows down his vassal head"

in adoration of the Ganges.

Such structures would be folly here. I venture the assertion that a cistern which will contain two month's supply, and having adequate water sheds, will overflow ten times where it will fail once. And now let us compute the *cost*:

If you have a clay soil, you have only to *finish* your cistern; the *walls* were laid at the foundation of the earth. If you have sand, the lessened labor of excavation will overpay for brick.

To cement it, engage the best plasterer and lend him two smart boys. He will have it like a parlor in a few hours. Object to his bill, and your foreman will pay it.

So far, cheap enough. You will want a "cover." Inch plank, battened, are sufficient; and if you have located your work under a shed, or will throw a shed over, and enclose the sides, you have what you always have coveted

—a tool room, with a good plank floor, where your implements will never be lost in the dust.

Now for gutters and conductors. Two cents a running foot, pitched and painted (better than tin) paying their cost a hundred fold by the absence of *drip* in the first shower.\*

This leaves you in debt to your own handiwork. Square the account by the best pump which can be had for money, and then wait for rain. And my good neighbors, when you hear the soft distillment go rippling along your gutters and plashing musically below, and when it returns gurgling at your touch, and your trough is full, and when the "dress circle" of your horse lot, petrified by what they suppose to be a "mirage," finally delegate your favorite filly to examine the phenomenon, and she, gathering confidence from your presence, plunges in her muzzle up to the eyes, and passes her silken foretop backwards and forwards under the very spout, *you* will have a consciousness which you would not readily part with, coupled with the clearest possible title to a sleek (or in other words) a *healthy* horse.

I should add to the above requisites, a couple or so of perforated zinc plates arranged at your exits and entrances, to keep out rats, frogs and other "small deer."

A cheap contrivance of my own for a filtering cistern, I may give hereafter.

Very respectfully, your obedient servant,

M. D.

Columbus, Ga., Sept., 1857.

#### MEMORANDUMS.

EDITORS SOUTHERN CULTIVATOR—In the September number, article, "The Grape Culture," "The Warren, which produces a wine allied to Madeira, and would be a Madeira if treated as such; is devoid of the *wild* flavor which attaches to the Catawba and Muscadine." You have it, is "devoid of the mild flavor which attaches to Catawba and Muscadine." There is no *wild* flavor, to the Warren grape, it has a rich wine flavor and very *mild*.

DWARF PEARS—Pears may be dwarfed not only on Quince and Hawthorn, but both the Pear and Apple may be dwarfed on each other. Graft Pear on Apple stock of the size of half, three-fourths, or an inch in diameter, six or twelve inches above the ground. Graft Apple or Pear in the same way. If the grafts are inserted at or below the surface of the ground near the roots, such grafts will in time, attain a tolerable large size; and if the grafts put out *roots*, they will grow to be large trees. I have dwarf bearing Pear trees on Apple, Quince and Thorn, and Dwarf Apple trees on Pear and Crab stocks.

D. P.

Mount Zion, Ga., Sept. 1857

#### MUSCADINE OR BULLACE WINE.

EDITORS SOUTHERN CULTIVATOR—I have been reading the *Cultivator*, for many years, and have been much benefited by it. I have learned many things of incalculable value to me as a farmer, by reading the hints of men of practical experience. I was born in the first settlements of Middle Georgia, and have grown old with the country. I am a witness to the rise and progress and present situation of the farming interest of the country, for I plowed the soil when I was only eight years old, and have been farming ever since. Yet I am learning something every month by reading the *Cultivator*, and I would advise every farmer who does not believe he knows everything, to send his dollar immediately and take the *Southern Cultivator*,

\*We suppose the gutters to be of *wood*, but our correspondent will oblige us and our readers by a detailed description of these and the filtering cistern alluded to.—Eps.

for he will learn a dollar's worth from every monthly issue. Those who have a few Muscadines on their spring branch or creek bottoms, may learn a dollar's worth if you will publish the following recipe:

Take one bushel of ripe Muscadines, mash them as you would peaches, when you wish to make brandy, place them in a tub, covered tight, let them stand until they ferment and settle, then press with a cider press. *Hick's Keystone Cider Mill and Wine Press*, is the best thing you can get, but a common cider press will do. Line the press with thin bleached shirting. One bushel of fruit will make three gallons of wine; to this, you must add six pounds of clear brown sugar; after a few days strain and settle or put it in a clean cask, and stop tight, and you will have a pure wine without using any distilled spirits. J. D.

Ebenezer, Ga., Sept. 1857.

#### SYRUP MAKING FROM THE SORGHO.

EDITORS SOUTHERN CULTIVATOR—Having read an article in your paper, by Dr. R. Battey, on making Syrup from the Chinese Sugar Cane, I have concluded to give you some of my ideas on the subject; if they are worth anything, I would be glad if you would give them a place in your paper.

Dr. B. says, in the first place, that a proper set of rollers and kettles should be provided, and properly set up. The kettles being properly set up, is an important item. The largest kettle should be set nearest the chimney, then the next in size and so on to the last, which of course will be at the end of the furnace, and should always be the finishing kettle. In setting up this kettle, the brick work should join the kettle an inch or two below half the depth of the kettle; this will obviate the necessity of moderating the fire, and thereby save time, which is an important item in syrup making. Experience has taught me, that the sooner juice can be boiled to syrup, the brighter color it has. In boiling, the heat should be sufficient to keep it up to the rim of the kettle all the time, until it becomes concentrated to a certain degree, then the more heat is applied, the faster it shrinks down in the kettle, and when boiled sufficiently, it stands a little below half the depth of the kettle. If the fire can reach the kettle above it, it will be sure to scorch it, unless it has been moderated, hence the necessity of having the brick to join the kettle below half its depth. Now in regard to the proper degree of concentration to which it should be brought:

The plan adopted by Gov. HAMMOND and Mr. PETERS, is not the one in use here, nor is it based upon the judgment of the eye alone. It is generally known by all who have seen syrup made, that when it becomes concentrated to a certain degree, it will not boil over; the steam does not escape so freely as before, and it begins to shoot up in bubbles; these increase in number until they rise up all over the surface; a great many of them burst and shoot up eight or ten inches, but as the syrup thickens they begin to cease bursting, and if boiled long enough, will finally cease. To make good syrup from the Chinese Cane, it should be taken off just before they cease bursting. The bubbles make a peculiar sound about the time they cease bursting, so that one can soon learn when to make a strike, without even looking into the kettle. Old sugar makers say, that the reason why this is a never-failing test, is because the water in the syrup causes the bubbles to burst, and as soon as they cease bursting it has all evaporated, and then the syrup becomes sugar. It requires as much boiling to make good syrup from the Chinese Cane, as to make sugar from the other. I would say to all those who are not fond of acids, to use lime in making it. Respectfully yours, FLORIDA.

Florida, September, 1857.

## CHINESE CANE---ITS PRODUCTS, &amp;c.

EDITORS SOUTHERN CULTIVATOR—I will give you an account of my Chinese sugar cane. I planted 2 sacks last spring, and I have just finished working it up; the result is 130 gallons of good bright syrup; 10 gallons of wine; 40 gallons of taffy, and 50 gallons vinegar; some very fine sugar—notable to say how much, as I have not got the molasses extracted from it. I have not measured my seed, though I think I shall have 50 or 60 bushels.

I planted the seed on 1½ acres of light sandy land, which would not have made more than 500 lbs. of seed cotton per acre. I would like to be a systematic farmer, if I could, and I am trying to get in that line. I am a fruit grower to some extent, and I have as good a selection of fruits as there is in the South. I have a young orchard of about one thousand trees, which furnishes a succession of fruit from May until the first of December. I am preparing to plant 1 or 2 acres of vineyard this fall, and I have a good selection of grapes, viz: Catawba, Isabella, Scuppernong, Blue Grape, Mustang and the Tennessee Black Grape, which last variety I prize above all for table use. I have not tested it for wine, though I think it will make an excellent wine, as it is the sweetest grape that I ever have tasted.

\* I think I shall be able to procure you five or six new subscribers for the *Cultivator*, for the next volume, for I wish to see it enlarged. In answer to a subscriber of Pine Forrest, Mississippi, I will give you a plan of a Flea Trap, that I think will take them all: Get some green pine poles and skin the outside bark off, and lay them where the fleas are most numerous, and you will catch and fasten them all.

I expect to be a subscriber for the *Cultivator* so long as I can raise a dollar. Yours with respect,

F. T. COOK.

Wehadkee, Ala., Oct., 1857.

## REMEDY FOR BOTS IN HORSES.

EDITORS SOUTHERN CULTIVATOR—I notice that something has been said in some of the back numbers of the *Southern Cultivator* about Bots in Horses, Remedies, &c. I will not pretend to go into details about the bots, but will simply give my remedy. One that is just as good for Cholic as for Bots and never knew it to fail in either case. Take one pint of water and make it quite sweet with molasses, and then add to it one ounce of chloroform, keeping the bottle well corked to prevent evaporation, and drench the horse. If for Bots the horse will be well in five minutes—the Bot is killed the moment the chloroform enters the stomach. The very worst case of cholic it will cure equally as quick. It is the first and only thing that I have ever tried that would kill the Bot, without injuring the horse in the least.

To satisfy you that it will kill the Bot, in one half hour after you have given the above drench, give a sufficient quantity of castor oil to purge the horse well, and you will find that every one that he discharges will be dead and never will come to life again. If you can procure a live Bot, touch it with one drop of chloroform and it will kill instantly.

The horse will appear a little stupid from the effects of the chloroform and will not be fit for use under some three or four hours after being drenched.

I have given chloroform in whiskey, but find it most too strong a drench. I much prefer giving it in molasses and water—it answers every purpose. The horse is more easily and more safely drenched with it. I have never yet had to repeat the dose, though in a very bad case of cholic it might be necessary; if so, I would advise you to repeat it in thirty minutes after giving the first.

L. E. L.

Marshall, Texas, Aug., 1857.

## BAGGETT SCRAPER, vs. YOST SCRAPER.

EDITORS SOUTHERN CULTIVATOR—The object of my communication in August last, speaking of the two scrapers above mentioned, was to call the attention of the planters to the fact that they would *not* now by the introduction of the Baggett Scrapers have to throw away their Taylor or Bar Scraper, as they would have to do if they purchased the Yost Scraper, but to impress upon their minds the fact that all those who had a Taylor or Bar Scraper could have the same so improved by attaching a plow to it on the same stock, that the two may be worked together in baring off and scraping cotton at one and the same time with perfect success; thus saving to the planter five or six dollars for every Taylor or Bar Scraper that they may own. This, to the planters who now have Bar Scrapers is no unimportant item. I should not have alluded to this subject again, but your types made me say what I did not intend to say, which was to the effect that in purchasing the Baggett Scraper the planter "would now have to throw away their Taylor or other Bar Scraper," which wrong quotation destroyed in part the object of my communication. The object of this is merely to correct the above error which was not the only one that occurred in said communication.

Respectfully,

FRANCIS MARSHALK.

New Orleans, Sept., 1857.

## CURATIVE PROPERTIES OF SUGAR CANE Vapor.

Dr. Cartwright, of New Orleans, has published in the Boston Medical Journal, an article describing the cures effected upon persons afflicted with consumption and bronchitis, by inhaling the vapor arising from boiling cane juice. It appears that chemical investigation has discovered two very different properties in sugar, the freshly-cut cane juice destroying cold blooded animals as quick as lightning. From witnessing this remarkable property of killing so rapidly, the doctor seems to infer that it would cure equally as effectually, and he tried the experiment on a consumptive Frenchman, by making him inhale the vapor of boiling cane juice. The man got well. The doctor, in a fit of medical enthusiasm ascribed it to the vapor, and he wishes the world to know the good effects of this remedy. It has long been observed by overseers of sugar plantations, that weakly or sickly persons soon get robust and strong when set to skimming the pans during the boiling of cane juice. The fragrant cane juice is perfectly respirable, and penetrates into the smallest bronchial tubes, and produces beneficial effects. If there is anything in the discovery, the fact ought to be extensively circulated, for consumption is the greatest of all the destroyers of the human race.

[We suppose, of course, that the vapor of the Chinese Cane also "carries healing on its wings," and shall, therefore, have to add to the other good qualities of the Sorgho, that of an important remedial agent in consumption. Truly! the "half has not been told," respecting this wonderful plant!—Eds.]

## "YOUNG AMERICA" CRUSHER---PRICE, &amp;c.

EDITORS SOUTHERN CULTIVATOR—In my article, giving notice of the "Young America" Crusher, (as Excelsior.) I made a mistake in figures. The price is \$35, instead of \$25, as stated by me. My attention has been called to the fact by the General Agent, writing from Magnolia, Mississippi. I regret the occurrence, as it may have misled some.

Yours &c.,

G. D. HARMON.

Utica, Miss., Sept., 1857.





# The Southern Cultivator.

AUGUSTA, GA:

VOL. XV., NO. 11.....NOVEMBER, 1857.

## SUSPENDED BANKS AT PAR

THE Proprietor of the *Southern Cultivator* will take the bills of the following suspended Banks AT PAR, for any indebtedness to this office, or for subscriptions to the *Southern Cultivator* and *Chronicle & Sentinel*:

GEORGIA RAILROAD BANK.  
UNION BANK, Augusta.  
BANK OF THE STATE OF SOUTH CAROLINA.  
BANK OF SOUTH CAROLINA.  
SOUTHWESTERN RAILROAD BANK.  
PEOPLES BANK, Charleston.  
BANK OF HAMBURG.

## ANSWERS TO CORRESPONDENTS.

CORN AND COB MILLS.—J. H. MCQ.—We cannot undertake to determine the merits of the different machines mentioned—each has its advocates and admirers—probably either the “Little Giant” or “Young America” would accomplish all you desire.

COOKING STOVE.—B. G. MCK.—The “best cooking stove” we know of, is “Mott’s Patent Invincible Range”—Tubular Oven, sold by S. S. JONES & Co., of this city, with all the necessary cooking fixtures, at \$50. We have had one in use for several months, and we have yet to hear the first complaint of its performance.

SOAP MAKING.—Mary S.—Have you tried the “Saponifier” or concentrated Ley? It is sold here by all the Druggists, and 25 cents worth of it, with 4 pounds of meat skins or other coarse grease, makes 15 gallons of good soft soap. It will, also, make “hard” soap, by the addition of salt and rosin, or salt alone. Full directions accompany each package of the Ley. It is a good article, and worth trying.

CONSTITUTION, &c., FOR AGRICULTURAL SOCIETIES.—J. J.—The article you desire will be found on page 112, last volume, (April number, 1856.) We fortunately, have one spare copy, which we send you.

BALE OF WOOL.—E. T. M.—Your letter was enclosed to the Agent of “Richmond Factory,” as requested.

PORTABLE ONE HORSE WHEAT THRESHER.—W. A. T.—Any subscriber possessing information respecting a machine of this kind, will please address: W. A. TUMLINSON, Tumlinsonville, Scott Co., Ark. We have none of the Large White Rye desired by this correspondent.

CONCRETE WALLS AS FENCES, &c.—E. T.—Walls of Concrete 4 or 5 feet high, if capped with flat stones or cement, would answer admirably to enclose cemeteries, &c. There can be no doubt of their durability.

“THE YOUNG FARMER,” near Okolona, Miss., will oblige us by sending his proper name and full address to the Editors.

Many other inquiries, &c., will receive attention in our next.

## RENEW YOUR SUBSCRIPTIONS!

ONE more number, completes the Fifteenth Volume of this journal, and we desire to commence our Sixteenth Year with a much larger list than we have ever had before. Will not our friends exert themselves for us? Will not each subscriber, in renewing his own subscription, send us at least *one* additional name? If this is done—as it may easily be—it will make the publication of our paper in a slight degree remunerative, and greatly increase our ability to render it *practically useful*. If Southern Farmers and Planters were properly alive to their own interests, each Agricultural Journal in the Cotton Growing States would have a thousand subscribers, where it now counts but a hundred! Let each of our old subscribers, however, resolve to send us *one new name* with his own, by the first or middle of December, and we will be content for the present.

## SORGHO AND IMPHEE.

THE merits of the Sorgho are already pretty conclusively established; and we had expected to present some facts respecting the *Imphee*, in this number; but as no definite results have been communicated to us by the gentlemen engaged in its cultivation, we will leave the matter open for future discussion. Thus far, it does not appear that the ordinary efforts to make *sugar* have been very successful with either plant; though *syrup* of a good quality has been made from the Sorgho, by almost everybody. We are not at all surprised at this—we never supposed that every man who raised the cane could make *sugar*, any more than that every Cotton planter could, or ought, to make his own shirting. “Every man to his trade,” and no mixing up of Agriculture and Manufactures, say we. Both Sorgho and Imphee, undoubtedly, contain *sugar*; but whether they will yield it in sufficient quantities to justify every man in making his own supply, is a question for the Chemists and Sugar Makers to determine, after careful experiment. Let the people be content with *syrup*, *fodder* and *seed*, for the present—in gaining these, they have accomplished much to be thankful for. The “*Sugar, Alcohol, Wine, Beer, Cider, Vinegar, Starch, Dye-stuffs*,” &c., &c., will, doubtless, all be forthcoming in due season!

LANDSCAPE GARDENING.—The attention of all who desire to improve their Flower Gardens and Grounds, is directed to the advertisement of Mr. NELSON, in present number. In all that pertains to Floral Embellishment and Rural Improvement, generally, Mr. N. has no superior in the South; and those who can do so, should avail themselves of the opportunity which he now offers.

**A REASONABLE REQUEST.**—We are often in receipt of such polite requests as the following, most of which, we are reluctantly obliged to decline. We present a literal transcript, merely suppressing signature and Post Office:

"MR. R——D, Esq., DEAR SIR: You will please send me by the next mail, one of your Chronometers, as I have some three acres of Chineas Sugar cane that I wish to make in to syrup, and understand your Chronometers will tell the precise time to boil it &c.

Yours truly

N. B. If you have any Charge to make, send me the amount and I will remit the same to you, fourth with."

OUR friend forgot to enclose a postage stamp for our reply, but thinking a *Saccharometer* might be the instrument he desired, we immediately referred him to Dr. ROBT. BATTEY of Rome, Ga., and we hope that, ere this, he has discovered the "precise" time to boil his Cane Juice, and is luxuriating in its luscious sweets.

**RHEUMATISM.**—Will our correspondent, "A. T. L.," whose article on Rheumatism appeared in the *Cultivator* for November, 1854, be kind enough to send his full address to the Editors of this Journal?

**PALMA CHRISTI.**—A correspondent wishes information in reference to the cultivation of the Palma Christi plant, and manufacture of Castor Oil from its seeds. Any information on the subject will be very acceptable to the *Cultivator*, for publication.

**A CAMEL LOAD.**—The government camels now at work in Texas, carry 600 pounds of corn at a load, and travel three and a half miles an hour without difficulty. Their great value is not so much on account of greater strength than the horse, but on account of their ability to make the *jornada del muerto* or "journey of death" across some of the desert plains of Western Texas.

**MISSISSIPPI FAIR.**—The Annual Fair of the Mississippi State Agricultural Society, will be held at Jackson, on the 4th and 5th of the present month, (November).

**AGRICULTURAL SOCIETY IN JACKSON CO., TEXAS.**—Some of the prominent citizens of Jackson have formed a very pleasant association, which, from a knowledge of those engaged in it we predict is destined to become permanent and useful. It is a kind of social agricultural society, well calculated to promote the best farming interests of the country, and also to foster social and friendly feeling amongst its members, inducing them to "dwell together in unity."

That our soil and climate are capable of results in the way of agriculture, that have not been attained, there can be no doubt; and all efforts calculated to develop unknown facts, and to add to the productiveness of the soil, should be encouraged.—*Texas paper.*

**FRUIT IN LOUISIANA.**—A correspondent, "J. P. H.," writes from New Orleans, under date of August 11th: "My Peaches and Pears, this season, are abundant and of great excellence; some of my Bartlett Pears, I should think, will weigh a pound."

## THE VALUE OF THE CHINA TREE.

This beautiful shade tree, under whose wide spreading branches the Southern people spend so much of their leisure time in the hot summer, is (says the Port Gibson *Herald*) truly to them one of the greatest blessings of Providence. There is an inviting and welcome look about its refreshing shade, and we hold that man is a misanthrope indeed who loves not the China tree. But the China tree while it is such a friend to man, is an unrelenting foe to insects and vermin.

Man has no terror about him to the bold little ant in his "wild hunt" after something to eat, and in his little pleasure excursions, but in neither his hunting nor pleasure trips, nor in his aspirations for the higher life, will he climb the China tree. And the caterpillar refuses to grace it with its handsome turnout of butterflies. The tree frog leaps from it as it would from the little urchin armed with a stick for its destruction; and those ear splitting little tormentors, the locust and the catydid, are said to refuse to make melody in its branches.

This repulsiveness about the China tree to insects and vermin, has led some observing and thoughtful persons to experiment with it. Its branches hung about fresh meat will keep off flies. A tea made of its roots is said to be death to garden worms. The skipper fly will not trouble meat which has been smoked with the berry or wood of the tree. Fleas and bed-bugs refuse to keep company with its leaves. In fact the China tree needs only the application of the inventive genius of a live Yankee to draw from it some balm for most of "ills that flesh is heir to." Truly the China tree is a great tree—the pride of the South, as well as of China.

**CHINESE SUGAR CANE.**—The editor of the St. Louis *Daily Intelligencer* was shown specimens of sugar manufactured at Belcher's sugar refinery in that city, from Chinese sugar cane grown this year in the neighborhood. The sugar is brown, and pretty well granulated, being very similar in taste to the Louisiana sugar. The editor of the Austin (Texas) *Gazette*, has seen a sample of sugar made from Chinese cane by Mr. Studor, near Austin, which he describes as being of fine grain and color, and such as would command the highest price in New Orleans.

**ROT IN THE GRAPE.**—An experienced Grape Grower, of Hancock Co., Ga., writes us as follows:

"Grapes have not yielded very abundantly, as they were nipped in the Spring after putting out. The Isabella and the Warren, were infested with the rot. I applied a solution of sulphur water two or three times, and then a solution of lime water, which finally arrested the progress of the disease." D. P.

**MERIT AND POSITION.**—The difference between a man of merit and a man of position, is this: the latter is the man of his day, the former is the man after his day.

There was a king in England when Shakespeare lived there, and doubtless every child in the realm knew his name familiarly; but how many knew the name of the poor play-writer? But now almost every child that speaks the English language knows of Shakespeare and his writings. How many of them knows of James and his writings? Very few. Thus the man of high position died with his position and his day; but the man of merit only began to live when he died.

## OUR BOOK TABLE.

**SORGHO AND IMPHEE—THE CHINESE AND AFRICAN SUGAR CANES.**—A complete treatise upon their Origin, Varieties, Culture, and Uses; their value as a Forage Crop; and directions for making Sugar, Molasses, Alcohol, Sparkling and Still Wines, Beer, Cider, Vinegar, Paper, Starch, and Dye-Stuffs; fully Illustrated with Drawings of Approved Machinery. With an Appendix by Leonard Wray, Esq., of Caffraria, and a Description of his Patented Process for Crystallizing the Juice of the Imphee; with the latest American Experiments, including those of 1857, in the South. By HENRY S. OLCOTT. To which are added Translations of valuable French Pamphlets received from the Hon. John Y. Mason, American Minister at Paris. Price One Dollar. Sent by mail, post paid. Published by A. O. MOORE, (Successor of C. M. Saxton & Co.) 140 Fulton St., New York.

Nothing could be more opportune than the appearance of this work, now, when the whole country is so deeply interested in the production of cheap, home-made Syrup and Sugar. Mr. Olcott has performed his task in a very able manner, and his book contains a complete account of these valuable plants (Sorgho and Imphee,) and their products, up to the present time. Every one who cultivates, or desires to cultivate either plant named should procure a copy. As the best evidence of its value, we present, entire, the Table of Contents:

**CHAPTER I.—Origin and Subsequent History of the Chinese Sugar Cane.**—The Cane in China—Accounts of Jesuit Missionaries—Extract from Japanese Works—Its Exhibition at the Great Fair at Moscow—Introduction into Europe—The appearance of Mr. Wray's Imphee—Precarious position of the Sorgho—To whom is most Honor due—Sale of 800 Seeds to Vilmorin Adrieux & Co.—Various Experiments—Attempt of Pietro Arduino in 1786—Mr. Leonard Wray—Introduction of the Sorgho into America—Sugar made by Professor Avequin, of Louisiana—How Patent Office Seeds should be used.

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The Publisher has sent us a few copies, which we will send per mail, post paid, at \$1 00; or they may be obtained from nearly all Booksellers.

REPORT OF COMMISSIONER OF PATENTS FOR THE YEAR 1857. *Agriculture.*

This volume is one of the very best and most attractive, that the Patent Office has yet issued. It contains a great number of articles on the Agriculture of the country, and is profusely illustrated with Draft Horses; Sheep; PRABODY'S new Strawberry; Mice; Rats; Squirrels; Eagles; Hawks; Owls; Birds, of various kinds; Tool Houses, Tool Closets; Lime Burning; Draining; Grafting; Grape Planting; Wine Making, &c., &c. Upon the whole, a very interesting and useful volume. Send to your Representative or Senator, and get a copy.

## DOWNING'S FRUIT AND FRUIT TREES OF AMERICA.

CHARLES DOWNING, Esq., has politely sent me a copy of this new work, revised and corrected; for which he

has my sincere thanks. This is now the best work extant for the Amateur and professional Pomologist. It is a perfect *vade mecum* of the present time, on this interesting department of science, and I do not hesitate to recommend it to the craft, as well as to hope that the author may reap golden opinions for his enterprise and perseverance in thus getting up this work, so necessary to all Pomologists.

J. VAN BUREN.

We have received the second and closing number of Dr. TRALL'S *Illustrated Family Gymnasium*, containing the most approved methods of applying gymnastic, calisthenic, kinesipathic and vocal exercises to the development of the bodily organs, the invigoration of their functions, the preservation of health, and the cure of diseases and deformities. Price, complete in two numbers, \$1 25. Sent by mail, postage prepaid, by FOWLER & WELLS, publishers, 309 Broadway New York.

THE HORTICULTURIST, for October, has illustrations of two Southern Apples, (*Red June* and *Maverick's Sweet*), and a great amount of interesting matter relating to Pomology, Gardening, &c. All tasteful cultivators—the ladies, especially—should subscribe for it: Terms—\$2 00 per annum, in advance. Address. RICHARD PEARSALL SMITH, Philadelphia, Pa.

"THE PLANTER & MECHANIC," of Jackson, Mississippi, comes to us for September, "enlarged and improved." Terms, \$1.50 per annum. J. J. WILLIAMS, publisher.

## Horticultural Department.

### REPORT UPON GRAPES

of the Committee Ad Interim of the Pomological Society of Georgia.

As several varieties of Grapes, some well known to all fruit growers, others imperfectly so, and some entirely new, have been, from time to time, submitted to the Committee, it has been thought best to report upon this fruit by itself; and in so doing, notice in detail, all the native varieties known to us, now cultivated. We shall strive to do this so fully that any one under the impression he has a new Grape can probably ascertain from these descriptions if his fruit has already passed under the eye of the Committee; and if it has, determine for himself its name; or if new, he can send it for them to report upon its qualities and value.

So far as we know, our cultivated native Grapes all belong to three species: 1s. *Vitis rotundifolia* (Vulpina of Gray). 2d. *Vitis æstivalis*. 3d. *Vitis labrusca*. The first of these species includes the "Muscadine and Scuppernon," the second the smaller fruited juicy "Summer Grapes," and the third the common "Fox Grapes."

I. *Vitis rotundifolia* (Vulpina, of Gray).—Stem moderately large, perfectly smooth, even in the oldest vines. Leaves small, seldom over three or four inches across, thin, smooth, shining on both sides, most so beneath, rounded cordate, not lobed, acuminate, very coarsely toothed, teeth generally alternately larger and smaller; axilla of the nerves beneath sometimes furnished with a small tuft of pubescence. Panicles small, densely flowered, blossoms later than the other species. Berries large,  $\frac{1}{2}$  to  $\frac{3}{4}$  inch in diameter, black, purple or light green, without bloom, with a thick, tough skin, musky. Branchlets minutely warty. (Scuppernon, Bullace or Muscadine, Bull Grape, Southern Fox Grape.)

Individual plants of this species often produce male or staminate flowers only; but upon examination of many vines this season, wild and cultivated, while in blossom, none were found pistillate only. So far as observed, all the bearing vines of the species had hermaphrodite or perfect flowers. The species is doubtless polygamous. All the blossoms observed were also six petalled and hexandrous. Of this species the only cultivated variety is the

*Scuppernon*, a native of North Carolina, now widely cultivated. It is not dioecious, as stated by Downing and other authors, but with perfect flowers. The tendrils are green. Bunches very small, having generally two to four and occasionally up to nine berries, loosely set, large ( $\frac{3}{4}$  to  $\frac{1}{2}$  inch in diameter,) round. Skin thick, light green with minute brownish dots. Flesh somewhat pulpy, juicy, of a honied sweetness, rich and luscious, of a somewhat musky flavor and scent. Berries ripen gradually and drop from the bunch when mature. The vine does not readily strike from cuttings. There are said to be seedlings of this Grape with black and purple fruit, equal in quality, to the Scuppernon itself. For ordinary culture, as it never rots, and is said to produce a good wine, this is probably the best single variety—single vines covering an immense area of trellis and producing sometimes over twenty-five bushels. Quality very good. Fruit from E. Bancroft, Esq., Athens.

II. *Vitis æstivalis*.—Stem climbing, lofty. Leaves rounded, heart-shaped, sublobately angled, sometimes distinctly three or five lobed, with rounded sinuses; acuminate, irregularly toothed or serrate with the teeth mucronate, alternate ones often smaller; above, smooth or somewhat arachnoid (cobwebby), especially in their younger state; beneath, more or less downy with loose cobwebby hairs, hoary or fuscous (sometimes subglabrous) the youngest ones always more densely villous; leaves generally smoothish green above; Fertile panicles, compound, oblong. Blossoms open after those of *V. labrusca* and before those of *V. rotundifolia*. Berries small,  $\frac{1}{4}$  to about  $\frac{1}{2}$  inch in diameter, round, rather closely set, usually black or dark purple, with a bloom; generally pleasant. Varieties of this species display unusual diversity in form of leaf, but the cobwebby instead of wooly and velvety down of the leaves and young shoots, the general resemblance of the bunch and berry in size and its usual freedom from muskiness and pulp render it generally quite easy to refer them to *Vitis æstivalis*. It affords already varieties which if inferior in size of berry are quite superior in flavor and excellence, more worthy of cultivation for the table, and quite as much so for wine, as those derived from *Vitis labrusca*. It is also the most promising source from which to seek superior new varieties from seed. The wild species is called the "Summer Grape," the cultivated varieties are as follows. First, those with leaves usually three or five lobed:

1. *Devereaux*.—The only specimens we have seen were from Peters, Hardin & Co., of Atlanta, from which and from three small vines set out this season, our description is derived, aided by notes from Dr. Baldwin, of Montgomery, Alabama. It was found in the woods over forty years since by Samuel M. Devereaux, and first cultivated by himself and his neighbors, near Sparta, in this State. As Devereaux kept the stage house, passengers soon disseminated it, being struck with the wonderful productiveness of the vine. It seems quite distinct in foliage. Younger leaves sub three lobed—older ones distinctly lobed. The young leaves and shoots are light green (not brownish as in the Warren). Leaves moderately downy, distinctly arachnoid, hoary instead of fuscous. Bunches quite long (those sent, over 9 inches) very much shouldered, compact. Berries small. Skin thin, black, covered with blue bloom. Flesh free from

pulp, and abounding in juice of a color as dark red as that of the pokeberry, of a brisk excellent flavor. Quality very good, a prodigious bearer, hence, like the Warren, considerably liable to rot. (This is not the Devereaux of "Gardening for the South," which is the true Lenoir). Ripens about the middle of August. The color of the juice is deeper than that of any other grape known.

2. *Ohio*.—Leaves large, three-lobed, deeply cut. Young shoots, tendrils and leaves green, no shade of red in them. Somewhat hoary beneath. Shoots long-jointed, strong. Bunches shouldered, large, long, loose, tapering. Berries small round. Skin thin, dark purple with a blue bloom; without pulp, tender, melting and sweet. Very good, but too small a fruit to be very desirable. Ripens just before the Warren. Origin unknown. Fruit from Richard Peters, Esq., Atlanta.

3. *Elsingburgh*.—From a town near which it was found in New Jersey, it takes its name. Mature leaf, dark green, five-lobed, deeply cut, but less so than the Warren. Leaf stalks and tendrils more red than usual, terminal leaves brownish, with but little cobwebby down beneath, and more above, nerves of older leaves considerably downy. Bunches shouldered, rather large, loose. Berries quite small. Skin thin, black, with a blue bloom, free from pulp, melting, sweet and pleasant. Ripens nearly as early as Lenoir. Distinguished from the Ohio by the leaves being five instead of three-lobed, and by the brownish shade of young shoots, leaves and tendrils, which, in the Ohio, are green. Fruit from Dr. Ward.\*

4. *Camak's*.—This vine, evidently a native, was one of those in the garden of James Camak, Esq., at his decease some 10 years since. Resembling considerably the Warren and being somewhat shaded and overgrown, its distinct character, until the present season, was unrecognized. Its origin being unknown, we have named it after the energetic pioneer in horticulture, in whose collection it was found. Leaves three or five-lobed, deeply cut. Bunches shouldered, long (7 to 9 inches), loose, tapering. Berries rather small ( $\frac{3}{8}$  to  $\frac{1}{2}$  inch in diameter) round. Skin thin, light brownish red, with a light bloom. Flesh tender, melting, free from pulp, very sweet and excellent. Quality best. Differs from Warren not only in color of the berry, which is much lighter, but in ripening more evenly, and in the general shape and character of the bunch on which the berries are so loosely arranged that they will probably not be liable to rot. The vine, too, is evidently less rampant in growth. Fruit from Dr. James Camak, of Athens, Ga.

5. *Warren*, (Warrenton, Herbemont's Madeira).—It is pretty well established that this vine was first cultivated by Mr. Neal, a farmer of Warren county, of this State, living four miles from Warrenton, at least as early as the year 1800. In the early settlement of the county, he found the vine in the woods near his own residence and transplanted it. Its productiveness and unequalled flavor attracted attention, and soon it became cultivated in Warrenton, and under the name of Warren and Warrenton spread over the State, where it is now more cultivated than any other grape. In 1805, the late Prof. J. Jackson, formerly of this place, found it growing under the name of Warrenton (from whence the cuttings were procured) at the farm of a Mr. McWhatty in Jefferson county, and when he settled near him, Mr. Jackson procured cuttings from Mr. McWhatty's vine and commenced its cultivation himself. In 1811 or 1812, Mr. Jackson carried cuttings to a relative in Laurens county, where the well known vine grower, Mr. T. McCall, of Dublin, first saw it in bearing. Obtaining it, he planted a vineyard about 1816 and in

1819 or 1820, Prof. Jackson spent a day with Mr. McCall and drank with him his Madeira, made from this grape. About a year later Prof. Jackson sent to his brother in this place (Athens) rooted plants, from which most of those now cultivated here were derived. We believe the Herbemont identical with this vine, as vines in Clarks-ville, Georgia, from Herbemont, also one obtained by Mr. Camak from Herbemont himself, while living, which is still in bearing, prove nothing distinct from the Warren. As the latter name indicates the origin of the vine, and as under this name or Warrenton, it was widely cultivated at least twenty-five years before known to Herbemont, and as it is still known as Warren by nine-tenths of those who raise it, the name Herbemont should be dropped. Vine rather short jointed for the species, though the most vigorous grower we have; leaves five-lobed, very deeply cut, youngest ones moderately downy beneath, with a slight brownish tint; half grown ones very little arachnoid of a light yellowish green; full grown leaves dark green above, with nerves densely villous, making the leaf beneath a little hoary. Bunches medium to large size (the best weighing about 12 ounces), shouldered. Berries round,  $\frac{3}{8}$  to  $\frac{1}{2}$  inch or over in diameter, rather closely set. Skin thin, very dark purple, with light bloom. If not very closely pruned, the grapes on the same bunch do not color evenly, varying from light to dark purple. Flesh tender, melting, entirely free from pulp, very sweet and pleasant juice, of unusual specific gravity. Quality best, for table or wine, an enormous bearer, quite subject to rot, but even then more fruit ripens than of almost any other grape. Generally allowed to overbear.

II.—Varieties of *Vitis æstivalis*, with leaves sublobately angled or sub-lobed, not generally with fully developed lobes.

6. *Lenoir*.—(Sumpter, Thurmond, Early Black July, Sherry and Devereaux of "Gardening for the South.") This grape which has every characteristic of a native, is not named from its color, but was discovered growing in his hedge row, many years since, by a gentleman named Lenoir, in Sumpter district, S. C. He at once brought it into cultivation himself and distributed cuttings to his neighbors; and we learn from our informant, Col. A. G. Summer, it is still in that section more cultivated than any other grape. As this variety, in leaf, fruit and time of maturing is decidedly one of the most distinct, and easily recognized of those in cultivation, it is evident that the grape known in Ohio as Lenoir, which "differs from Herbemont (Warren) only in being of more vigorous growth, wood light colored with a light blue cast," is doubtless the Warren itself, a more vigorous grower than which would be hard to find. Col. Summer, who has known the Lenoir for years, and that, too, in the place where it originated, pronounces the grape, long cultivated here under the erroneous name of Devereaux, to be, in leaf and fruit, identical with the Lenoir, and since seeing the latter we coincide with him that it certainly agrees in every particular with the grape known as Lenoir, in the Nurseries throughout the State. The leaf of Lenoir is of but medium size, and the most entire of the cultivated varieties of this species, being merely indented, seldom even sub-lobed. Young leaves but moderately downy, with a slightly brownish tint. The down of the terminal leaf is not fuscous. Older leaves have a yellowish cast beneath, smoothish when quite mature and nearly free from the cobwebby down. Bunches rather small (about six inches long), shouldered making them some three inches broad at the base. Berries averaging about four-tenths but sometimes half an inch in diameter and pretty even in size, rather compact or crowded on the bunch. Skin thin, black, covered with a blue bloom. Flesh sweet, juicy, with a brisk agreeable flavor. A good bearer, and we have never known it to rot. Quality very good; the birds would say "best," as they take it in pre-

\*We are not quite certain that our *Elsingburgh* is the true variety. Dr. C. W. GRANT, of Newburgh, N. Y., (excellent authority) thinks it distinct from that at the North.



ference to any other grape. Ripe early in August. Vine resembles Long's more than any other; but by the less downy character and the yellowish tint of the older leaves, and the brownish cast of the younger ones in Lenoir, the two are easily distinguished, even in rows of cuttings. In fruit, bunches of Lenoir average not two-thirds the weight of Long's. Berries smaller, of darker color and ripen three weeks sooner. Fruit from Peters, Harden & Co.; Dr. Camak, and Dr. Ward.

7. *Long's*.—The parent vine was found over thirty years since, by Col. James Long in the woods of his plantation, near Danielsville, Ga. He removed the vine to his garden, and by himself and family it has been since retained as an esteemed variety, not subject to rot, and of great fruitfulness. A sparkling wine of good quality has been made from it. Vine of vigorous growth. Leaf, in shape much like Lenoir, but more apt to be deeply indented, sometimes sub-three-lobed, of large size, thick; young leaves at first very hoary with down, which, in the very youngest is a little fuscous; color of the leaf itself a clear green, with no shade of brown or red. Older leaves all-always more cobwebby than any other cultivated variety, giving a whitish appearance beneath quite distinct from the yellowish shade of Lenoir. Bunches somewhat shouldered, very compact, of medium to large size, good ones weighing about 12 ounces. Berries average larger than Lenoir, the best being a little over half an inch in diameter. Skin thin, very dark purple, with a blue bloom. Flesh tender, very little pulpy, sweet and vinous. Quality, good. Ripens last of August or early in September. Fruit from Dr. C. W. Long.

8. *Harris*, (Old House Grape).—This grape came originally to this place from Iverson L. Harris, Esq., of Milledgeville, whose father, eating the fruit from a vine upon a tree near a deserted house, procured cuttings the next winter and brought it into cultivation. Hence, it is sometimes called the "Old House Grape." Vine quite vigorous, leaves large, sublobately angled or sub-three-lobed near the apex, which makes it quite distinct; more deeply cut than the two preceding, being sometimes three lobed. The leaf has a yellowish shade, moderately downy, less so than Long's and down less cobwebby; old leaves rather smooth. Bunches medium, shouldered, compact, a little larger than Lenoir. Berries round, three quarters to half an inch in diameter, averaging nearly as large as Long's and Warren. Skin rather thick for the species, black, covered with a blue bloom. Flesh little pulpy, sweet, sweet, juicy and agreeable. Quality, very good. A valuable variety, not subject to rot. Middle of August. Fruit from Dr. Camak.

9. *Norton's Virginia*.—Leaf sublobately angled, sublobed, and sometimes (but not generally like Warren, &c.) fully three or five lobed. Green of the young leaves has a yellowish shade. Young shoots and terminal leaf above and young leaves beneath with a fuscous (changing to hoary) cobwebby tomentum. Nerves strongly marked, reddish beneath. Older leaves nearly free from down. Bunches long, occasionally shouldered, somewhat compact. Berries pretty uniform, in size about four or five-fifths of an inch in diameter. Skin thin, nearly or quite black, with a blue bloom. Flesh quite pulpy, vinous and harsh; not even "good." Not worth cultivating. Said to be a hybrid between Bland and Miller's Burgundy, but is totally unlike either. As LeConte observes, "Although among some families of plants hybrids occur naturally or may be found artificially, yet it is difficult to understand how this ever can be case in the genus *Vitis*, in forming a hybrid it is necessary to emasculate the flower which we wish to produce fruit, and to impregnate

its pistil with the pollen of some other species; this is impossible in the present instance on account of the minuteness of the flower and the parts of fructification." Nor is this all. He might have added another difficulty. The petals are caducous and cohere together at their tips, forming a little cap which, in the act of falling off whole, draws over from one side or other almost invariably the pollen from its own stamens upon the pistil. The chances then are that an operator on so minute a flower in the act of removing this cap, and then the stamens, would have already fertilized the pistils before applying the pollen of species or variety selected. We would not, however, assert that hybridization, naturally or artificially, is absolutely and in every case impossible, but nearly so; and such being the fact in general, Norton's Seedling gives as little evidence of being a special exception as any variety we know, being totally different from its reputed parents, and agreeing sufficiently well in character with the species æstivalis. Fruit from Dr. Ward.

Doubtless the *Delaware*, as well as other varieties not yet known to the Committee, pertain to *Vitis æstivalis*, but the foregoing are all that have, as yet, come under our observation.

HON. MARK A. COOPER, President.—Dear Sir:—The Committee Ad Interim of the Pomological Society beg leave to submit the foregoing report on the Grape. They hope by a further report upon the varieties of *Vitis labrusca*, the coming month, to close up the subject for this season.

WM. N. WHITE.

Athens, Ga., Sept., 1857.

#### BULBOUS FLOWERS FOR THE SOUTH.

*Dielytra Spectabilis*.—This is unquestionably one of the greatest acquisitions to our flower gardens, that has been added to them for the last twenty years. It is a perennial plant, introduced from China about a dozen years ago. It belongs to the natural family *Fumariaceæ*, and several species of this tribe are indigenous to North America; the *Dielytra formosa*, for instance, is found on the mountains of North Carolina. The Chinese species (*Dielytra spectabilis*), however, far surpasses all the others others in beauty and gracefulness; it is a charming flower, which surprises the beholder of it every spring.

The root is a fleshy tuber, somewhat resembling a piece of fresh ginger. By the beginning of April it develops its very delicate and peculiar foliage, followed by several half transparent flower stalks, about 2 feet high, gracefully bent, and producing the pink-colored, heart-shaped flowers, of the size of a lozenge, in one-sided, drooping sprays. The corolla itself is pearly white, set, as it were, in frosty silver.

Most of this tribe will, in their natural state, be found in such localities where they can enjoy the early morning sun in the spring, and be shaded by bushes against the hot noon sun. This species, however, will stand the full exposure better than the other species, but could it be planted at the north side of a building, or on the shaded, (already so often described,) so much the better; if this cannot be done conveniently, it should receive a heavy mulching with litter, during the hottest part of the summer. A deep and rich black soil suits this plant best and it will soon form a strong bunch. Specimens have been known which measured thirty feet in circumference, with two hundred spikes of flowers; this was, however, on a spot which had been filled up four feet deep, with very rich soil, and such specimens are but seldom to be met with.

During the latter part of the summer the foliage dies off to appear again by next spring in renewed beauty. This plant will do equally as well in the greenhouse as in the open garden. If taken up in October and planted in a box

\*See Proceedings Acad. Nat. Sci., Philadelphia, February, 1853.

or large pot, it will bloom in the house in January and February. It must, however, be observed that it should have but very little water while in a dormant state, as it otherwise may be apt to rot; but whenever sprouting, water must be applied liberally. It is propagated like Dahlias—by taking young sprouts off in the spring, and planting them in sandy soil.

*Gladiolus*.—The name is derived from the Latin word *Gladium*, a sword, in allusion to the shape of the leaves. But three species of this large tribe are indigenous to Europe, all the others are natives of the Cape of Good Hope. It is now exactly a hundred years since the first kinds, as: *Gs. cunonia*, *tritis*, *recurvus* and *involutus*, were introduced into the European gardens, from Africa. By hybridizing and proper cultivation the varieties have increased, not only in number, but in brilliancy and beauty. They are so easily raised, and so perfectly adapted to our Southern gardens, where they are perfectly proof against our scorching sun, that they only need to be known to be fully appreciated.

I will here enumerate some of the best:

*Gladiolus Byzantinus*, is one of the earliest blooming sorts, of a deep crimson color, blooming in May; from one to two feet high.

*Gladiolus cardinalis*, brilliant scarlet, spotted with white; blooms in May. One to two feet high.

*Gladiolus floribundus* has light pink-colored flowers, striped with deep purple, and, unlike most other species, which, as a general rule, have all their flowers turning to one side, this is distichous, or has its flowers arranged in two rows, one opposite the other. Blooms in June. Three feet high.

*Gladiolus gandavensis*, a most magnificent flower, the stem often rising 6 feet high, and crowded with large flowers of a bright scarlet and yellow color. Blooms in June.

*Gladiolus ramosus* is a beautiful distichous species of a lively rose color, the lower petals striped with white. It blooms later than the other species, and if the ground is rich, and sufficiently supplied with water it will keep on blooming until frost. New hybrid varieties of this latter species are:

*Anna Paulowna*, pure white.

*Belvedere*, orange, striped with white.

*Formosissimus*, saffron, striped with white.

*Insiquus*, dark carmine, striped with blue.

*Prince Albert*, light rose color, striped white.

*Queen Victoria*, scarlet, striped with white.

Many new varieties have just been introduced, and we will speak of them at some future time when their value has been fully tested by our experience.

The bulb of the *Gladiolus* is flat, rather button-shaped. It will last in the ground for several years, not requiring any care but to be kept clear of weeds. But as a new bulb is formed every year on the top of the old one, they should at once be planted pretty deep, say six inches below the surface, as they otherwise in a few years will work themselves out of the ground. The best plan however, is, to transplant them every autumn, as soon as the leaves are perfectly withered.

The *Gladiolus*, like almost all bulbs, prefer a deep, rich, sandy soil. They are, however, so easily cultivated, that they will be satisfied with almost any good soil.

ROBERT NELSON.

"Fruitland Nursery," Augusta, Ga., 1857.

SOUTHERN TREES BEST.—In a Preamble Address before the State Agricultural Society of Kentucky, Mr. R. J. SPURR, remarked:

"I cannot forbear a word of remark in regard to the introduction of fruit trees, especially the Apple. It has of late been our fashion to procure large quantities of young

apple trees from the Northern nurseries to plant upon our farms; we soon perceive that, with all our care of cultivation, they have not the luxuriant growth of our Native Trees, and after years of careful attention to them we will find when they come into bearing that we are disappointed in their quality, not from imposition practised upon us by the nurserymen, but from the fact that an apple which had proved in the North to be a good winter variety when brought to our climate is only a fall fruit. Life is too short to remedy such disappointments."

#### A FEW WORDS ON HORTICULTURE.

EDITORS SOUTHERN CULTIVATOR.—Much of the beauty of our ornamental grounds is lost by too thick planting. The single specimen, perhaps, of a Deodar, which we dibble in with our fingers, the dozens of little Hollies or wild Olives, (*Cerasus Caroliniensis*, the evergreen glory of the world,) which we have captured in the swamp and brought home in a handkerchief, seem so lost in the expanse around them, that they are invariably either placed in a bed already crowded, or surrounded by a greater crowd in a new location. Thus the whole place, however "watched and tended," soon runs into a wilderness, beautiful perhaps in many aspects, but altogether objectionable as regards the chief end of planting.

Nature has stamped an "expression" on the surface of the earth, and our practice has resulted in defeating and concealing it. Each human face, has somewhere in its lines, its distinctive claim to original beauty: some expression which can attract; but when all its lines are drawn by pain or passion, this natural charm is lost. So with our gardens. The gently rolling surface, the curving walks, the glossy leaf and gorgeous blossom, may all exist, but if they have been so planted that the whole affair has grown into a single clump, it is at last only a garden in convulsions—the expression is lost.

Bad as this effect is on "ground," the evil to the plant is greater. Our climate demands for all its vegetable children, ample room and verge enough. Deprived of this, they lose not only their expression, but their very character—a sad loss to anything.

The thicket in Middle Georgia, is a modern institution. Never shone the sun on a lovelier region than it was when bequeathed to us, swept and garnished, tilled and planted by the simple agencies of the Indian hunting fires. The thicket has followed civilization. Our Republican Pioneers unseated the forest Monarchs and the "Young America" of saplings sprung up like weeds.

For beauty or fruit, we must have space. From the Corn-stalk to the Black-jack the rule holds. Who looks for beauty in a Black-jack? Why cumber it the ground? Cast it into the fire! and a capital fire it makes. But take the Black-jack in its youth, and give it room to develop itself, and no Pear tree in the Jardin des Plantes—no figure in Geometry will surpass it in the accurate outline of its cone.

A "belt" has its uses and its beauty. It can veil a defect, if not exalt a charm. Nothing is easier to generate, or harder to locate.

A clump is proper, and most lovely in its place, and when we shall acknowledge that a single plant of alfine variety, e. g., the Pitsporium, fairly treated, composes a finer clump than two dozen in the same area, we may approximate perfection in this particular.

"Masses." And who will compare the mass of a single full-bosomed Luxembourg, to the tangled thickets of yellow leaves and stricken buds, which go under the name?

Let us not, then, be afraid to show how nature has formed

our surface, to trust our nurslings to her generous bosom; let us trust a little more to the teachings of our native soil and climate, and a great deal less to the wheedlings of our foreign barrow-knights, and we will soon infuse into our horticulture, the all important spirit of the Art—Simplicity and Grace. M. D.

Columbus, Ga., Oct., 1858.

P. S. One of your correspondents asks for information in regard to Pears on Hawthorn.

I can answer that I have Pears on Quince, budded in June last, and have just seen the same varieties, budded at the same time on "Haw," and that the growth is equal, and the fruit-buds promising. The growth from the bud in June, till the last of August, varies from three to six feet.

#### PLANT ORCHARDS, NOW.

A Correspondent of the *Country Gentleman* thus laments his neglect to plant Fruit Trees properly and at an early day:

"There is scarcely an individual who has not at some unlucky moment thoughtlessly dropped a word or performed an act which has given him painful reflections for years. In vain has he wished it recalled. Fruitless has been his endeavors to heal the breach. The act was performed, and its effect is doing its painful work. The individual could only sigh his regret that his indiscretion could never be amended.

The writer of this article has committed an error which has given him bitter regret. Unlike the adage which says, "misery likes company," he would commit his imprudence to the world, that others may shun his miscalculation, and avoid his remorse.

Like many young farmers, I commenced with limited means. In debt for my land—buildings to be erected, and so many ways for my small funds, that I deferred to plant an orchard. In my strife for gain, years passed quickly, and often was I advised to make preparation for fruit, which I ever determined to do; but there is always more to be done on a new farm than beginners usually have means to immediately accomplish. And when I should have had bearing trees, I came to the conclusion to plant an orchard. Selecting, therefore, a piece of ground, which I esteemed fit for nothing else, in my haste I dug small holes, bending the roots to conform to their scanty place. The work was speedily done, and I flattered myself that I should soon reap a rich reward; for I began now to be in a hurry to enjoy the pleasures of fruit. But how sad was my disappointment—how keen my mortification, when I found that some of my trees perished the first season, and some lingered along for several years, and apparently died very hard. A few, however, after some years, began to make a feeble growth. It is well known that farmers have a great pride in raising good crops, and when a failure through miscalculation occurs, they are very sensitive of shame. As a person would reluctantly visit a room where his follies were vividly pictured before his face on the wall, so I avoided the parcel of ground containing my [badly planted] trees.

Thus has the best part of my life been deprived of the wholesome enjoyment of fruit. In the season when the evenings are long, and when fatigued by reading, have I perfectly longed for apples, but they were not. Still the denying so great a privilege cannot be compared to the sensitive feelings, (known only to parents) when my children would look so wishfully at their mates while they enjoyed the luxury of which my children were denied. Then would I reproach myself for the stupid neglect, which not only deprived myself, but my children of the pleasure which our Creator designed we might have, although wisely appointed to be obtained by labor and care.

Dollars and dollars have I paid for a scanty supply, while some of my neighbors are realizing from a single tree \$10 per season; and as one acre would contain 50 trees, this would give, at the above rate, \$500 [per acre] a year.

I would advise every farmer, by the consideration of both comfort and wealth, to take care for fruit. S. B."

#### PROLIFIC CUCUMBER.

EDITORS SOUTHERN CULTIVATOR—In my article in a late number of the *Cultivator*, describing a cucumber vine, growing in the garden of A. J. Nichols, Esq., of Clarksville, I promised to report progress from time to time if found worthy of further notice. As the story of this wonderful vine is growing on my hands to such an enormous size, I find it necessary to deal it out to you by piece meal, for fear you will be not able to bear it, were I to communicate all at one time.

Up to this time, Sept. 3d, said vine, (*a single vine*), has produced 700 fine sized cucumbers, with a fair prospect of 100 more at least, and perhaps more; beat it who can!

Some 30 or 40 of the first it bore, were permitted to grow to ordinary size for table use, 2 were permitted to ripen for seed, and the balance were saved for pickles, averaging from 3 to 4 inches in length. Mr. Nichols kept a daily record of the product for the entire month of August, but what it bore in July, was only kept in the aggregate without regard to date. If you would like to have the daily yield, I will send it in my next.

What I have related above, can be verified by any number almost, of reputable witnesses in the village.

This is no *Morus Multicaulis* speculation, but the sober truth. Mr. Nichols has no seed for sale, but will give all he has away, reserving a few for planting next year himself.

Herein, is a few enclosed from him to yourself. I have frequently examined this vine, and have seen 11 cucumbers on a length of 2 inches of it, and have seen 7 cucumbers growing in a cluster from the axil of a single leaf, in truth, from the axil of nearly every leaf, grew from 2 to 7 cucumbers.

This must be a new variety, as Mr. Nichols had a number of other vines from the same lot or paper of seeds, but none of them were at all remarkable, this single vine has produced more than 30 or perhaps 50 of the others have done.

The calculation was as follows: It was planted in a rather low moist portion of the garden, on a made soil of some two feet in depth, where a corn crib stood for some years, no manure was used, the vine was trained on a bush some six feet in height, and about the same in diameter, the ground was watered in the evening during the dry weather, when it became dry; but during the rainy weather it received no other attention than to spread and conduct the vine about over the bush.

The present size of the stem near the ground is about 1½ inches in diameter. I forgot to mention, that the leaves on the lower part of the vine were pulled off from day to day, as they commenced dying, so that it is now nearly naked, with the exception of the ends, which are vigorous and still producing abundantly.

J. VAN BUREN.

Clarksville, Ga., September, 1857.

RECIPE FOR MENDING BROKEN CHINA.—Take a very thick solution of gum arabic in water, and stir into it plaster of Paris until the mixture becomes a viscous paste. Apply it with a brush to the fractured edges, and stick them together. In three days the article cannot again be broken in the same place. The whiteness of the cement renders it doubly valuable.

## COTTON CROP OF THE UNITED STATES.

Statement and total amount for the year ending 31st August, 1857.

NEW ORLEANS.		TOTAL.		
	Bales.	1857.	1856.	1855.
Export—				
To Foreign ports.....	1,293,717			
Coastwise.....	223,204			
Stock 1st Sept. 1857....	7,321			
	1,524,242			
Deduct—				
Received from Mobile,				
Montgomery, &c.....	60,036			
Received from Florida,	4,708			
Received from Texas...	17,503			
Stock 1st Sept. 1856....	6,995			
	89,242			
	1,435,000	1,661,433	1,232,644	
MOBILE.				
Export to For'n Ports..	314,989			
Coastwise.....	174,055			
Consumed in Mobile &c	2,246			
Burnt at Mobile.....	12,700			
Stock 1st Sept. 1857....	4,504			
	508,494			
Deduct—				
Rec'd from N. Orleans	10			
Ship't to Boston, ret'd	302			
Stock 1st Sept. 1856....	5,005			
	5,317	503,177	650,738	454,595
TEXAS.				
Export to Foreign Ports	20,907			
Coastwise.....	68,636			
Stock 1st Sept. 1857....	962			
	90,505			
Deduct—				
Stock 1st Sept. 1856....	623	89,382	116,073	80,737
FLORIDA.				
Export—				
To For. Ports—Up'ds..	30,889			
Coastwise—Up'ds.....	82,636			
S. Islands.....	20,365			
Burnt at Apalachicola.	2,472			
Stock 1st Sept. 1857....	56			
	136,418			
Deduct—				
Stock Sept. 1st 1856....	74	136,344	144,404	136,597
GEORGIA.				
Export—				
To For. Ports—Up'ds..	152,228			
S. I....	6,611			
Coastwise—Up'ds.....	158,791			
S. I....	10,028			
Stock in Savannah, 1st				
Sept. 1857.....	1,926			
Stock in Augusta, 1st				
Sept. 1857.....	2,747			
	332,331			
Deduct—				
Rec'd fm Florida—S. I.	6,839			
Stock in Savannah, 1st				
Sept. 1856.....	1,550			
Stock in Augusta. 1st				
Sept. 1856.....	1,781			
	10,220	522,111	389,445	373,694
SOUTH CAROLINA.				
Export from Charleston.				
To For. Ports—Up'ds..	212,604			
S. I....	16,581			
Coastwise—Up'ds.....	162,541			
S. I....	6,908			
Burnt at Charleston...	461			
Stock in Charleston 1st				
Sept. 1857.....	5,644			
	404,739			
Export from George-				
town, S. C., to Coast-				
wise Ports.....	9,500			
	414,239			
Deduct—				
Rec'd fm Florida—S. I.	3,307			
Rec'd from Key West				
and Nassau, N. P.,				
(wrecked)—Up's....	431			
Rec'd fm Sav'n—S. I..	1,539			
Up'ds.....	3,437			
Stock in Charleston, 1st				
Sept. 1856.....	3,144			
	16,908	397,331	495,976	480,272
NORTH CAROLINA.				
Export—Coastwise....	27,147			
	27,147	27,147	26,098	26,139

VIRGINIA.	Bales.	TOTAL.		
		1857.	1856.	1855.
Export—				
To Foreign Ports.....	200			
Coastwise.....	5,454			
Manufactured.....	13,541			
Stock, 1st Sept., 1857.	420			
	24,615			
Deduct—				
Stock, 1st Sept., 1856.	842			
	23,773	20,458	31,060	
Received at N. Y., from Mem-				
phis, Nashville, &c., Tenn..	2,022	2,086	1,061	
Rec'd at Philadelphia fm Tenn.	1,236	7,938	3,100	
" at Baltimore from Tenn..	1,496	4,191	5,500	
TOTAL CROP.....	2939,519	3,527,845	2,847,330	
Decrease from Crop of 1856.			bales 589,326	
Increase over Crop of 1855.....			92,182	
Increase over Crop of 1854.....			9,490	

## EXPORTS TO FOREIGN PORTS, FROM SEPT. 1, 1856, TO AUGUST 31, 1857.

FROM	To Gr't Britain.	To France.	To N. Eu'pe.	Other F'n P's.	Total.
New Orleans..b's	749,485	258,163	156,450	129,619	1,293,717
Mobile.....	211,281	84,840	16,370	2,348	314,989
Texas.....	9,792	4,428	6,687	....	20,907
Florida.....	29,125	....	1,764	....	30,889
Savannah.....	138,694	3,564	5,976	10,665	158,839
Charleston.....	138,876	40,821	28,296	21,192	229,185
North Carolina.....	....	....	....	....	....
Virginia.....	200	....	....	....	200
Baltimore.....	....	....	....	....	....
Philadelphia.....	820	....	....	....	820
New York.....	145,984	21,601	28,600	808	196,993
Boston.....	4,663	....	1,455	....	6,118
Grand Total.....	1,428,870	413,257	245,798	164,632	2,252,657
Total last year.....	1,921,386	480,637	304,005	248,578	2,954,606
Decrease.....	492,516	67,280	58,207	83,946	701,949

## COMPARATIVE STATEMENT OF GROWTH.

Crop of	Bales.	Crop of	Bales.	Crop of	Bales.
1856—7.....	2,939,519	1844—5.....	2,394,503	1833—4.....	1,305,394
1855—6.....	3,527,845	1843—4.....	2,030,409	1832—3.....	1,070,438
1854—5.....	2,847,339	1842—3.....	2,378,875	1831—2.....	987,477
1853—4.....	2,930,027	1841—2.....	1,683,574	1830—1.....	1,038,848
1852—3.....	3,262,823	1840—1.....	1,634,945	1829—30.....	976,845
1851—2.....	2,355,257	1839—40.....	2,177,835	1828—9.....	870,415
1849—50.....	2,096,706	1838—9.....	1,360,532	1827—8.....	727,593
1848—9.....	2,728,596	1837—8.....	1,801,497	1826—7.....	957,281
1847—8.....	2,347,634	1836—7.....	1,422,930	1825—6.....	720,027
1846—7.....	1,778,651	1835—6.....	1,360,725	1824—5.....	569,249
1845—6.....	2,100,537	1834—5.....	1,254,328	1823—4.....	509,158

Crop of Sea Island Cotton.—The Crop of this Staple the past year (included in the General Statement) was as follows:—Florida, 20,365 bales; Georgia, 9,764; and South Carolina, 15,185—total, 45,314 bales, against 44 512 in 1855—6; 40,841 in 1854—5; and 39,686 in 1853—4.

## CONSUMPTION.

Total crop of the U. States, as before stated.	bales.	2,939,519
Add—		
Stocks on hand at the Commencement of the Year, 1st Sept., 1856.....		
In the Southern Ports.....	20,014	
In the Northern Ports.....	44,157	64,171
Makes a supply of.....		3,003,690
Deduct therefrom—		
The Export to Foreign Ports 2,252,657		
Loss, Foreign included.....	1,161	
	2251 496	
Stocks on hand Sept. 1, '57:		
In the Southern Ports.....	23,580	
In the Northern Ports.....	25,673	
	49,258	
Burnt at N. York and Baltimore.....	798	
	2,301,552	
Taken for home use.....	bales.	702,138

## QUANTITY CONSUMED BY AND IN THE HANDS OF MANUFACTURERS NORTH OF VIRGINIA.

Year.	Bales.	Year.	Bales.	Year.	Bales.	Year.	Bales.
1840—1.....	297,288	1832—3.....	194,412	1855—6.....	6,652,739	1847—8.....	3,531,772
18 9—40.....	295,193	1831—2.....	173,800	185—5.....	93,584	1846—7.....	4,227,967
1838—9.....	276,018	1830—1.....	182,142	1853—4.....	4,610,571	1845—6.....	4,225,597
1837—8.....	246,063	1829—30.....	125,512	1852—3.....	3,671,009	1844—5.....	3,899,006
1836—7.....	222,540	1828—9.....	104,853	1851—2.....	2,608,029	1843—4.....	3,346,744
1835—6.....	236,733	1827—8.....	120,593	1850—1.....	1,404,108	1842—3.....	3,325,159
1834—5.....	216,888	1826—7.....	103,483	1849—50.....	487,769	1841—2.....	2,267,850
1833—4.....	196,413	1856—7.....	7,702,138	1848—9.....	5,513,039		

We give below our usual Table of the amount of Cotton consumed the past year in the States South and West of Virginia, and not included in the Receipts at the Ports. Thus—

	1850.	1851.	1852.	1853.
North Carolina.....bales.....	20,000	13,000	15,000	20,000
South Carolina.....	15,000	10,000	10,000	10,000
Georgia.....	27,000	13,000	22,000	20,000
Alabama.....	6,000	4,000	5,000	5,000
Tennessee.....	12,000	8,000	7,000	5,000
On the Ohio, &c.....	27,500	12,000	16,000	30,000

Total to Sept. 1...bales.....107,500 60,000 75,000 90,000

	1854.	1855.	1856.	1857.
North Carolina.....bales.....	20,000	18,500	22,000	25,000
South Carolina.....	12,000	10,500	15,000	17,000
Georgia.....	23,000	20,500	26,000	23,000
Alabama.....	6,000	5,500	6,500	5,000
Tennessee.....	6,000	4,000	7,000	9,000
On the Ohio, &c.....	38,000	26,000	42,000	38,000

Total to Sept. 1...bales.....105,000 85,000 117,500 117,000

To which, if we add, (for the past year,) the Stocks in the interior or Towns 1st instant, (say 2000 bales,) the quantity now detained in the interior, (say 5000 bales,) and that lost on its way to market the past year to the Crop as given above, received at the Shipping Ports, the aggregate will show, as near as may be, the amount raised in the United States the past season—say, in round numbers, 3,014 000 bales, (after deducting 100 bales new crop received this year to 1st inst., and some 50,000 bales detained in the interior September 1st, 1856, which came forward the past season and is already added to the Receipts at the Ports,) against

1856.....bales.....	3,335,000	1851.....bales.....	2,450,000
1855.....	3,178,000	1850.....	2,212,000
1854.....	3,000,000	1849.....	2,840,000
1853.....	3,360,000	1848.....	2,357,000
1852.....	3,100,000		

The whole Consumption of the United States the past year to September 1, 1857, was 840,000 bales against 788,000 bales the year before.

The quantity of new Cotton received at the Shipping Ports to 1st September was—in

1857.....bales.....	160	1850.....bales.....	255
1856.....	1,800	1849.....	575
1855.....	34,079	1848.....	3,000
1854.....	1,890	1847.....	1,121
1853.....	716	1846.....	200
1852.....	5,125	1845.....	7,500
1851.....	3,200		

### GOUT IN FOWLS &c.

EDITORS SOUTHERN CULTIVATOR—Every planter should contribute his mite, (not the genius *Acarus*,) but the mite the widow threw in, which was commended as of more value than the oblations of the rich; and sustain the *Southern Cultivator* with his practical, not theoretic mind.

I observe in one of your numbers, a correspondent is inquisitive to know a remedy for that formidable and oft-times fatal disease, the gout in fowls. A valuable game-cock afforded one of my little sons an admirable subject for experiment.

He made a salve of *tar, soap* and *sugar*, incised the protuberance, or tumor, crosswise, and bound the foot tightly by passing the bandage round each toe. In a few days it was removed, and a dark, hard mucus, of a fetid odor was extracted; and one would not imagine how such an obdurate tumor could occupy so limited a space just at the junction of the toes with the shank, or tibia, I believe the books call it.

Turner's Cerate was applied after a bath of soap and water, and now, the gouty game is assuming a bright, new plumage, as he had been nearly plucked and bereft of that chancicleer glory, and feeding freely on chopped peppers and homony, and I believe, if sulphur was added, it will be more efficacious still, to effect a perfect cure.

We have also suffered heavy losses of poultry; no age, or kind, being exempt. They eject from their mouths, by a sudden jerk, an acetous fluid, fall back and expire: others sit in profound repose until they extend their wings, turn over and die.

We have found cayenne, mixed with grist or homony, and bleeding under both wings an excellent remedy; and I have been recommended to secure a small bag of Asafetida in the poultry yard trough, with an ample supply of fresh water, as a preventive, it being a highly fetid gum, stimulant and antispasmodic; it is worth a trial,

when this vindictive enemy invades our extensive poultry-yard enclosed by a tabby wall and tabby floor, to keep out the rats, and correct a bad atmosphere.

The oat patch you recommended, is an admirable auxiliary, where some 90 or 100 young turkeys luxuriate every fine day, with their coops arranged under the grapery in a cool shade.

I observe your Concrete Cottage, at Fruitland, is of similar materials as our Tabby; substituting shells for stones in the proportion of three parts of shells, to one of lime, sand, or gravel; well mixed to a mortar, pounded into a two sided box or mould board, secured by movable pins, to regulate the thickness and length required for the walls.

Of this material we are now constructing a row of negro houses, with a Tabby Chapel at the head, and an avenue of native oaks on each side: as it is well known that when the country was in a state of nature, its salubrity was perhaps unsurpassed by any climate under the canopy of Heaven; and not until its surface was exposed to the intense rays of a Southern Sun, by the axe, plough and hoe, that its inhabitants were subject to epidemics, as epidemics were little known. To restore our dwellings to as near a state of nature as a dense shade surrounding them, would certainly promote health; which has been tested here from 1818 to the present time.

When the roving savage paddled from isle to isle, which stretch along our beautiful sea coast; luxuriating on finer oysters than can now be found; casting the bivalves in massive mounds around their wigwams; the Knisteraux of the Algonquius, and perhaps the Isicus of the Latins; they scarcely ever dreamed, if at all—their visions of the future never suggested the idea, that more thrifty and adventitious peace would supercede them, and apply these very shells they threw away as useless, in constructing durable, cheap buildings, and paving roads, rendering them equal to plank roads. Yet such are the facts, and these testaceous mollusks, collected for centuries by the Indians, are now affording us valuable materials in extensive deposits on this island.

My son has lately introduced a plow of his own plan, made in Savannah; that may be a valuable acquisition in breaking and mellowing your hard-pan clay soil in the up country.

Blade 6 inches long by 4 wide, coulter 10 or 12 inches long, with a back-brace 3 inches, turned up 1 inch to be let into the beam; made of bar iron about  $\frac{3}{4}$  or 1 inch thick, which any Blacksmith can make and jobbing Carpenter stock.

I cannot close this article better than in the didactic language of the great Jewish Lawgiver, in his Meshalim. "My son, keep thy Father's commandment, and forsake not the law of thy Mother: Bind them continually upon their heart, and tie them about thy neck. Where thou goest, it shall lead thee; when thou sleepest, it shall keep thee; and when thou wakest, it shall talk with thee. Go to the Ant, thou sluggard; consider her way's and be wise!" A PLANTER.

Glynn Co., June, 1857.

A THOUSAND FOLD.—We have just been informed, on the authority of a citizen of Monroe county, whose word is entitled to implicit credit, that he was shown a bunch of wheat containing seventy stalks. On each stalk there was an average of fifteen grains to each head, making in all the enormous yield of one thousand and fifty grains of wheat from a single grain.

Nor is this to be regarded as an isolated case. The crop in the country is represented as being as good as it is possible for the land to make it. We congratulate ourselves, therefore, on the prospect of cheap bread for another year.—*Forsyth Journal*, June 20.



## Advertisements.

## GRAPE CULTURE AND WINE.

PERSONS desirous of planting vineyards are respectfully informed that the undersigned are prepared to enter into Contracts at such rates as ought to induce every Planter and Farmer to experiment with a few acres; being convinced from observation of experiments already made that Northern Georgia, Alabama, and East Tennessee, are better adapted to the Grape than any portions of the United States, the Great Valley of the Ohio not excepted.

The cultivation of the Grape, and the making of Wine has been our occupation from early childhood, our parents having extensive vineyards of their own in Germany. This gives us a practical experience, which authorises us to say that satisfaction in all cases will be guaranteed, and success warranted.

We respectfully refer the public to H. W. Massengale, Chattanooga, Tenn.; X. G. McFarland, Rossville, Walker county, Ga.; Isaac B. Nichols, Opelika, Catoosa county, Ga., and W. F. W. Fischer, Dalton, Ga.; Mr. Fischer's Vineyard was planted by us, and being on the Railroad, we invite persons to call and examine for themselves.

We have for sale, as well as to plant, a large quantity of Catawba CUTTINGS, and upwards of 40,000 Rooted VINES, which will mature one year earlier than the cuttings. We solicit a share of public patronage, and will deliver either rooted vines or cuttings, during the planting season, at Chattanooga or Knoxville, Tenn.; Dalton, Rome, Atlanta or Augusta, Ga.

CHARLES PHILLIPPI,  
JOHN SCHMITT.

Rossville, Walker Co., Ga., Nov., 1857.

Nov57-3t

## SAUL'S NURSERY, WASHINGTON, D. C.

FRUIT TREES, EVERGREENS, DUTCH BULBOUS ROOTS, &c. The proprietor respectfully calls the attention of Nurserymen, Planters, &c., to the following nursery stock, which are remarkably fine this season, and low in price:

20,000 Dwarf Pears, choicest varieties native and European, those best suited to the Quince stock—very fine trees.

15,000 Peach Trees, standard kinds—splendid trees—Apples Apricots, Cherries, Plums, Quince, Grape Vines, Strawberries, Raspberries, Blackberries, &c.

20,000 Currants, Red and White Dutch, Red and White Grape, Victoria, Black Naples, &c.—strong plants.

20,000 Gooseberries—the large English varieties—strong.

50,000 Norway Spruce, 4 to 6 and 6 to 8 inches, transplanted, stocky and well rooted.

20,000 Chinese Arbor Vita—two year seedlings.

15,000 Silver Maple Seedlings.

Dutch Bulbous Roots—an extensive collection—received direct from Holland about middle September, and from houses with which I am acquainted.

Garden and Flower Seeds in great variety, with all articles pertaining to the nursery and seed trade, of best quality and cheap.

Catalogues can be had on application.

JOHN SAUL,  
Washington City, D. C.

Nov-3t

## WASHINGTON NURSERY--COLUMBUS, Mississippi.

W. C. TUCKER, Florist and Nurseryman, Columbus, Miss., has constantly on hand a large and splendid assortment of Apples, Pears, Peaches, Nectarines, Apricots, Plums, Cherries, Almonds, Figs, Pecans, Grapes, Raspberries, Currants, Strawberries.

Rare Evergreens, Roses, Vines, Trees, Shrubs, &c., Bulbous Roots, and Greenhouse Plants of the most beautiful and choice descriptions.

All plants ordered will be carefully packed in moss. Catalogues sent where desired.

Nov57-5t

## LANDSCAPE GARDENING.

THE subscriber will devote a portion of his time, the coming winter to LANDSCAPE GARDENING, LAYING OUT GROUNDS, PLANTING ORNAMENTAL TREES, SHRUBBERY, &c. &c. When the distance is not too great, he will superintend all operations in person; and will furnish plans to remote applicants who will describe their grounds, and state clearly their desires. Address

Nov57-1f

ROBERT NELSON,  
Augusta, Ga.

## CROWDER (COTTON SEED).

1000 BUSHELS, in sacks of 2½ bushels, at \$2 per sack. This is a long limed cotton of fine medium size, making rapidly from early till late, and shedding less than any other variety. Also 1000 bushels OLIVE, same price.

Orders, enclosing cash or Commission Merchant's authority to draw, will be promptly filled. Address

Nov57-5\*

DR A. W. WASHBURN  
Yazoo City, Miss.

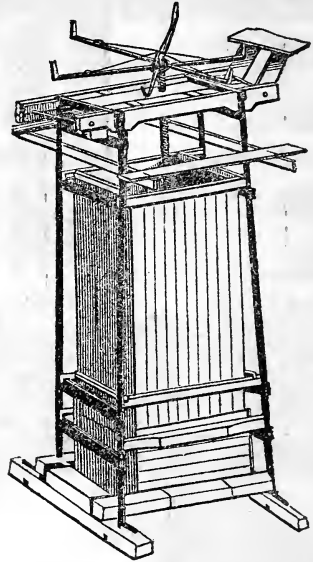
## NEWMAN'S THORNTLESS BLACKBERRY.

FINELY rooted PLANTS of this valuable new variety will be sent out this season at \$4 per doz; \$10 per fifty; \$18 per hundred, and \$120 per thousand. Address

Nov57-11\*

A. A. BENSFL,  
Milton, Ulster County, N. Y.,  
Sole Agent for sale of plants.

## TO COTTON PLANTERS.



THE Subscriber has thoroughly tried at Macon and Columbus, Georgia, his wrought iron COTTON SCREW, where two of them are now standing and will remain until October for inspection. I believe it is the cheapest, by half, ever offered for the purpose of pressing cotton or hay, as the frame, screw-pin, and levers are all of wrought-iron. It should be attached to the gin house, and have it put up through the floor, as the ordinary press—the levers being only five feet in length—to have the width of the house and 18 or 20 feet in length, the lint could then be placed all around the screw. Then a man can take five hands and pack as many five hundred pound bales in one day, with as little labor to the hand, as the same five and two more, with a horse, can on the wood-screw in the same time. Three hands can put up one and take it down, and it can be carried at one load with four mules to any point. As this is for the public eye, I will give the amount of timber necessary for completing one:

1	piece	17	feet	long	4½	by	9.
6	"	17	"	"	2	by	9.
2	"	17	"	"	4	by	6.
18	"	9	"	"	2	by	12.
3	"	16	"	"	2	by	4.
5	"	10	"	"	1	by	10.

1	"	14	"	"	6	by	16.
2	"	13	"	"	2	by	12.
2	"	14	"	"	1½	by	9.
2	"	10	"	"	1	by	5.
1	"	5½	"	"	9	by	23.

This to be of tough timber—pine or oak.

This makes a box near nine feet deep with bed and follower, and all other fixtures. I furnish the iron and the work done on it at Macon and put the above lumber to it at the place where it is wanted the purchaser, furnishing the lumber and paying the freight from Macon, can have one of the handiest and cheapest Cotton Screws now known, its durability considered, as it is given up by all who have seen it to be a lifetime investment. I can pack 500 pounds with three hands—take five hands and there is no hard work done. Price \$150 this year.

I expect, if life lasts, to have one at the next State Fair, and would be glad to see one of every other pattern of presses now in use there, and let the world judge for itself. I then expect to sell the right in any size territory, that may be desired on reasonable terms, with a working model within the limits of such county or counties, and all the information necessary for putting them up and working them. Address

Nov57-1f

JAMES MASSEY,  
Thomasville, Ga.

## SOUTH DOWN SHEEP.

I AM willing to dispose of a few very fine yearling SOUTH DOWN EWES, in lamb; also four fine yearling BUCKS, not related to the Ewes.

Persons wishing to make trial of this celebrated variety of Northern Sheep would do well to avail themselves of this opportunity to obtain a small flock of undoubted purity.

I will send a Buck and three Ewes for \$100, if applied for prior to the 1st of January next.

RICHARD PETERS,  
Atlanta, Ga.

## SOUTHERN CULTIVATOR FOR 1856.

FOUND volumes of the SOUTHERN CULTIVATOR for 1856. It may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.50. Address

WM. S. JONES, Augusta, Ga.

## NEW TREATISE ON LAND SURVEYING.

Just Published

BY E. C. & J. BIDDLE, Philadelphia. A TREATISE ON SURVEYING, in which the theory and practice are fully explained. Preceded by a short Treatise on Logarithms, and also by a compendious system of Plain Trigonometry. The whole illustrated by numerous examples. By Samuel Alsop, author of a "Treatise on Algebra," &c. In the above named work, the author has given definite and precise directions for practice, and has embraced in it everything which an extensive business in Land Surveying would be likely to require.

The work will be mailed at \$1 75 per copy, including postage. Nov-3t

## IMPORTANT TO PLANTERS.

THE RICHMOND FACTORY (Richmond county, Ga.,) continues to MANUFACTURE WOOLEN CLOTH, at 12½ cents per yard—finding every material except the Wool. The extensive and constantly increasing patronage the Factory has enjoyed for years past, assure the proprietors that the article of Winter Clothing for Negroes made by them, has not been surpassed by any cloth made North or South.

Recent extensive improvements and additions not only enable us to keep up the standard of the Goods, but to secure an early delivery of the same.

Planters or others, who may desire to avail themselves of this opportunity and secure a first rate article at a moderate cost have only to send us the Wool washed clean in cold water: (if sent dirty one-half a cent per yard extra will be charged for washing.) Burry Wool is not objectionable—the Burrs are removed by machinery.

The name of the owner should be marked on all packages sent us. Wool sent by any of the Railroads in Georgia, Alabama or South Carolina, to the Augusta Depot, marked Richmond Factory, (and owner's name also,) will be regularly and promptly received, and the cloth when made, returned to the points directed. Each parcel is made up in the turn received, hence an early delivery is always desirable. All instructions to

June 57—8t W. I. SCHLEY, President, Augusta, Ga.

## GRAPE VINES AT IONA.

DELAWARE, Concord, Union Village, Early Hudson, Hartford Prolific, Raabes's Clara, Raabe, Eltingburg, Rebecca, Herbeumont, Garriguea, Arkansas, York Madeira, Clinton, Emily, Minor, Catawba, Diana, To Kalon, Canby's August, Marion, Bland, Lyman, Brinkle, Mountain, Isabella, and Hyde's Eliza. Also, Strawberry, McCowan, Charter Oak, and Northern Muscadine.

A general assortment of RASPBERRY PLANTS, including Brinkle's Orange, which is the best of all Raspberries in cultivation for the market or garden. A small lot of Myatt's Linnaeus RHUBARB PLANTS, superior.

All of the above plants are offered singly, by the dozen, or to the trade. Address C. W. GRANT.

Oct 57—1f Iona, near Peekskill, Westchester Co., N. Y.

FRUIT AND ORNAMENTAL TREES, including EVERGREENS, the finest collection in the Union. 1,700 lbs. Chinese Sugar Cane, and also, parcels of 8,000 Seeds, post-paid, for \$1 25. Chinese Imperial Rice White Potatoes, the most valuable of Esculents—the only ones for sale of American growth, at \$3 per dozen—\$5 per 30—\$20 per 100. Osier Willows—8 in st. \$2—\$2 to \$5 per 100. Lawton Blackberry \$12 per 100—\$2 per doz. Grapes, Gooseberries, Raspberries and Currants at lowest rates. 1 ton and Victoria Rhubarb \$9 per 100. Apricot Vines, small for Hedges, and large sizes. All Evergreens of small sizes for Nurseries. All the new native Grapes, Tree and Shrub, Vegetable, Flower, and Evergreen Tree Seeds, Earth Almonds, Yellow and Honey Locust and Osage Orange Seeds. Strawberries—20 splendid market varieties—\$1 to \$2 per 100.

Priced Catalogues of every Department sent to applicants who enclose stamps. W. R. PRINCE & CO. Flushing, N. Y. May 57t

## VINEYARDS IN THE SOUTH!!

ROOTED VINES AND CUTTINGS of the CATAWBA—the great Wine Grape of the South—will be furnished by the subscriber from Vineyards under his own direction at Montgomery, Ala., Dalton, Atlanta, Crawfordsville, Washington and Augusta, Ga., and Abbeville, S. C. To insure freshness and save transportation, applicants will be furnished from Vineyards nearest to them, in all practicable cases. These Vines and Cuttings will be ready for delivery by the 1st of January, 1858, and as the supply is limited, early applications are advisable.

Purchasers will be furnished with full printed directions for planting, cultivating and pruning the vines until they come into full bearing—these directions will be so plain and explicit that any person can be sure of success. My Wine has stood the test of the best judges; it is now in market, and will rest on its own merits.

Address: CHARLES AXT, Crawfordville, Ga.

Oct 57—1f

## BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$30 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address Nov 55—1f R. PETERS, Atlanta, Ga.

## FOR SALE.

HAVING determined to remove West, I offer for sale my RESIDENCE in the immediate vicinity of Columbus, and my PLANTATION in Russell county, Ala.

The former is a handsome and commodious building, containing ten rooms, besides basement, store and ironing rooms. The outbuildings are well arranged for comfort and convenience. Attached to the residence are twenty acres of land, in fine cultivation, with a position on the main road, sufficient for one or more building lots. The healthfulness of the locality is unsurpassed.

My Plantation is 15 miles west of Columbus, on Uchee Creek, and 5 miles from the Mobile & Girard Railroad, and contains 2,600 acres. My success in making cotton is the best criterion of its claims upon the purchaser. Being susceptible of subdivision into three or four farms, some of which have improvements, I will sell all together or in separate settlements to suit purchasers. If desirable, I will sell the growing crop with the land, arranging for the overseer to remain with the hands to gather the crop under the direction of the purchaser.

In my absence, any one wishing to see my house and lot, can apply to my neighbors, Mr. Wm. A. Redd, A. C. Flewellen, or W. E. Jones.

Columbus, Ga., June 9, 1857.—Oct 57—1f

J. R. JONES.

## SOUTHERN PLANTERS!

Encourage your own Manufactures, which are now languishing for want of your support.

I TAKE this method of informing Planters that I am still manufacturing at Belleville Factory, Augusta, Ga., a first rate article of NEGRO CLOTH, made of strong, double, well twisted cotton warp, and pure wool filling; which I warrant as a faithful article, and to wear longer than any Northern goods.

Being one of the pioneers in manufacturing in Georgia, I have had to struggle against a fierce competition from the Massachusetts manufacturers—for their skill could put a good face on an inferior article, which they could sell nominally cheaper than I could a faithful article. Hence, merchants as well as planters, refused to encourage Southern enterprise, because Northern goods were offered at a few cents per yard less, overlooking the vast difference in the quality of the material used. Is not now the time for planters to encourage Southern manufactures, and make us independent of the North, especially when goods are offered at a reasonable price, and of a quality that will give satisfaction.

All orders will be filled in their turn, and forwarded as directed; on receipt of the goods, an order on your factor, or your note payable 1st of January, will be satisfactory. At the prices mentioned below, the goods will be delivered in Augusta and forwarded as directed.

Extra Heavy Twills..... 42 cents, 30 inches wide.  
Heavy Plain..... 32 " 30 "  
WOOL will be taken in exchange for goods, at 20 cents per lb; for unwashed, free of burrs; or 30 cents for clean washed—the wool to be delivered in Augusta. If there are burrs in it, the weight of burrs deducted. I will pay freight on the wool and deduct it when settling for it. It can be sent to S. H. Oliver, my agent at Augusta, and the goods will be forwarded promptly on receipt of the wool.  
GEORGE SCHLEY.

Aug 57—4t

## PLANTATION IN SOUTH-WESTERN

Georgia For Sale,

SITUATED on the east side of Flint River, 10 miles below Albany, the river forming the Western boundary, containing 1,346 acres (more or less) first quality PINE LAND. Between 500 and 600 acres are in cultivation, all of which is fresh, none of it having been cultivated more than 4 years. Thirty or forty acres will comprise all the waste land on the plantation. The improvements are a good Gin House, Overseer's House, C. lbs, Negro Houses, etc. The ill health of the proprietor's his reason for wishing to sell. Apply to S. H. HARRIS, on the Plantation, or E. B. BALLOU, Quincy, Fla.

Possession given 1st January next.  
Albany, Ga., March 27, 1857.

Aug 57—5t\*

## EVERGREENS AND ORNAMENTAL TREES

for the South.

A FEW rare and beautiful EVERGREENS, Trees and Shrubs of the proper size for transplanting may now be obtained from the subscriber. The collections embrace the Deodar Cedar, Cryptomeria Japonica, Oriental Cypress, Norway Spruce, Silver Fir, White Pine, Balsam Fir, Silver Cedar, Irish, English and Pyramidal Yew, Swedish Juniper, American and Chinese Arbor Vitae, Cedar of Lebanon, Magnolia Grandiflora, "Mock Orange," Pittosporum, &c., &c.: in short all the most desirable Evergreen Trees and Shrubs that flourish in this latitude. DECIDUOUS SHRUBS and TREES, of many varieties can also be supplied in quantity. (See Descriptive Catalogue sent gratis per mail.) Address, [Dec 56—1f] D. REDMOND, Augusta, Ga.

## RUMSON NURSERIES.

25,000 PEACH TREES, of fine growth and approved varieties.

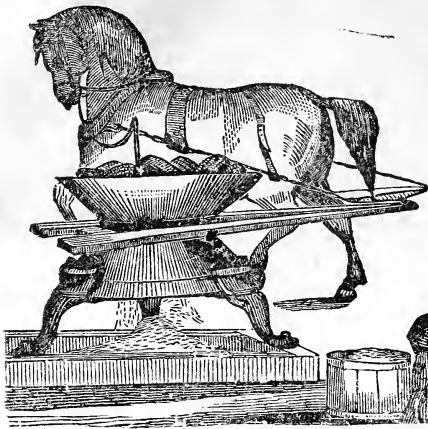
10,000 ORANGE ORNAMENTAL PLANTS for Hedging.  
5,000 ASPARAGUS ROOTS.

Also, STRAWBERRY PLANTS, Basket WILLOW (Stitz Heltz) CUTTINGS, &c. ASHER HANCE & SON.

Oct 57—3t

Near Red Bank, Monmouth co., N. Y.

# SCOTT'S LITTLE GIANT CORN AND COB Mill Improved.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials by SCOTT, MCKEE & CO., under the immediate supervision of the Patentee.

## CARMICHAEL & BEAN GENERAL AGENTS, AUGUSTA, GA.

THE attention of Planters and Stock Feeders is respectfully called to this MILL, as combining in a remarkable degree, portability and power, simplicity of construction and arrangement, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being only necessary to fasten them down to a floor or platform, and for this purpose the requisite screws and a printed card of directions will accompany each mill.

It has been proved by actual experiment, that Stock fed on Corn and Cob Meal are capable of doing more work, and are less liable to injury from being over heated, over-feeding and drinking, and will always keep in better condition than when fed on Corn alone; and in addition to this, it is conceded by all who have made the trial, that a saving of at least one-fourth is made by feeding Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium wherever exhibited; and we challenge the patentees, manufacturers and agents of all other mills, to produce *proofs* of its ever having been equalled at any trial conducted by disinterested persons and on fair terms. It is the product of genius, experience and perseverance, and such has been its success, and such the celebrity which it has gained during the two years of its existence, that several imitations and counterfeits have recently made their appearance with the vain hope that by assuming high-sounding names and stealing some of the Little Giant's thunder, they may be able to follow in its footsteps and share its fame. These mills are guaranteed against defects or breakage, when used according to the directions and as evidence of their durability, a No. 2 Mill, which has ground nine thousand bushels, and a No. 3 Mill, which has ground fifteen thousand bushels, are still doing good service. The smallest size, No. 1, will grind five bushels per hour with a small horse, and is offered at the low price of \$35, all complete and ready for attaching the horse. No. 2 will grind from eight to ten bushels per hour with one horse, and is sold at \$50. No. 3 requires two horses, will grind fifteen bushels per hour, and sells for \$60.

We append a few of the many certificates which we have received, and we have in our possession official written and printed testimonials which we will gladly exhibit to persons wanting mills, showing and proving the superiority of the Little Giant over all others:

### TESTIMONIALS.

AUGUSTA, GA., April 3, 1855

I have been running one of SCOTT'S LITTLE GIANT CORN AND COB MILLS, No. 4, for the last five weeks, and it performs to my entire satisfaction. It was warranted to grind twenty bushels per hour. But I have ground over thirty-five bushels in an hour and a half, or equal to twenty-three and half bushels per hour. In feeding thirty horses I save at least one hundred bushels of Corn per month, it now requiring only two hundred bushels of Corn with the Cob, where I formerly fed three hundred. I consider it decidedly the best kind of crusher ever got up and if I could not replace mine, I would not sell it for five hundred dollars.

I. D. M. THEW.

Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20, 87.

Messrs. CARMICHAEL & BEAN—Gents.—After having used the Little Giant constantly for two years I cheerfully confirm every statement made in my certificate of the 3d of April, 1855.

I. D. MATHEWS.

BEECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta, Ga.—Gents.—I have

had a No. 3 Little Giant in constant use for the last two years, and have fed my stock entirely on Corn and Cob Meal. I have never worked my horses and mules harder than during this time, and they have never been in better condition than they are now. Two horses will grind fifteen bushels per hour easily, and I feel confident that I save fully 30 per cent by using the mill. I am acquainted with several kinds of crushers, but consider the Little Giant far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gents.—We are using the Little Giant Corn and Cob Mills, which we bought from you, and here by recommend them to Planters and Stock Feeders as the most simple and durable, the most easily propelled, and best crushers we have ever seen, and by the use of which we believe a saving of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr. Crawford has two mills in use.

A. J. RAMBO, Edgefield District, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTUP, Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GOODE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

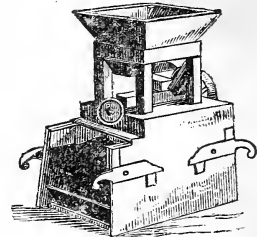
PORTER FLEMING, Augusta, Ga.

JAMES TORRYE, Lexington, Miss.

May 57—tf

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



**FELTON'S  
PATENT**

**PORTABLE GRAIN MILL.**

TROY, N. Y.

FOR grinding all kinds of Grain, including Corn and Cob, and adapted to the use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Possessing all the qualifications requisite to make it available to the Planter, it is destined to supply a want that has long been felt by that portion of the community. It occupies a space of only two feet by three, and weighs about 300 lbs. It is very simple in construction,—the grinding surfaces are of the most durable character, and are Self-Sharpening, requiring no skill to keep in order, and should they ever wear out, can be replaced at a trifling cost,—and the price comes within the reach of every Planter and Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is capable of grinding three bushels per hour with one horse power, and from six to eight bushels with two horse power; it grinds sufficiently fine for family use, and does not heat the meal—a most valuable feature.

The perfecting of this mill is the result of a long series of experiments which have been attended with great expense, but the success of the enterprise is most complete. Numerous testimonials, in its favor have been received and will be cheerfully exhibited to all.

All orders for Mills, Communications, &c., will be promptly attended to, and should be addressed to the Agent.

May 57—tf

D. CHAFFEE, Augusta, Ga.

## FRUITLAND NURSERY, AUGUSTA, GA.

Fruits and Flowers for the South!

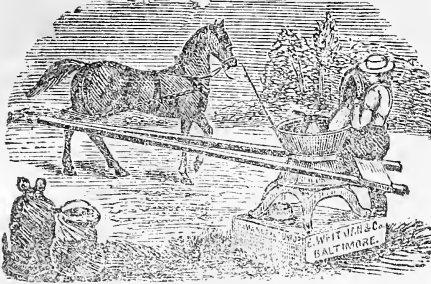
THE Subscriber has lately issued a NEW CATALOGUE OF FRUITS FOR THE SOUTH, in which all the BEST and most desirable NATIVE and FOREIGN varieties (suitable to our climate) are fully described; with special directions for the transplanting and management of Trees, Shrubs, Vines, &c. Also, a selected list and description of the rarest and most beautiful ROSES, EVERGREENS, etc., etc.; forming a familiar treatise for amateurs and those who desire to add to the comfort and adornment of their homes.

This Catalogue will be sent to all applicants per mail, FREE OF POSTAGE, by addressing

D. REDMOND, August, Ga.

Dec 56—tf

## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAYNOR'S "CHAMPION."

- The Manufacturers of the "Young America" claim for this Mill:  
1st. That it will crush Corn and Cob; also, grind fine Meal.  
2nd. That the entire grinding surface can easily be replaced at a small cost.  
3rd. That it has an extra set of fine and coarse plates.  
4th. That it deposits meal in a box or bag.  
5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.  
6th. That it submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding part-lasting, (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov56—tf

H. & J. MOORE & CO.

LANDS IN SOUTH WESTERN GEORGIA  
For Sale.

THE Subscriber offers for sale six improved PLANTATIONS, containing from 750 to 2,000 acres each. Land fresh and in cultivation.

Also 35,000 acres unimproved LANDS, situated in Dougherty and Baker counties.

The whole of these lands were carefully selected, and cannot be surpassed for certainty of crops and durability. Terms easy.

The Railroad from Macon will be completed to Albany by 1st Sept. next; thus giving easy access to all of the above named lands. Old settled plantations situated in Georgia or Alabama, within ten miles of a railroad, will be taken in exchange, if desired, at their market value.

W. W. CHEEVER,

Albany, Ga., Oct. 10th. 1856.

Nov56—tf

"FRUITLAND NURSERY," AUGUSTA, GA.  
IMPORTANT NEW ARRANGEMENT.

THE Subscriber takes great pleasure in informing his customers and the Fruit Grovers of the South generally, that he has recently made an arrangement with the well known Pomologist, LOUIS E. BERCKMANS, Esq., now of New Jersey, by which he will have full access to all the grafts and buds of that gentleman's collections of Pears, which number many hundred of the best named varieties, and more than twenty thousand new seedlings of great promise. In addition to this unrivalled collection of Pears, the specimen orchards of M. BERCKMANS contain all the best and rarest variety of other fruit known in Europe and America, from which we shall call every thing of special merit. It is not our object to multiply varieties, but to select, with the greatest care, the very best for extensive propagation.

A limited number of the choicest Pear trees, selected by M. BERCKMANS, will be offered from my Nursery the coming fall, and all the leading varieties of Southern Fruit, Roses, Ornamental Trees, Strawberry Plants, Grape Vines, &c., &c., can then be furnished in quantity, at very moderate prices.

Full Descriptive and Priced Catalogues, sent post paid to all applicants. Address, D. REDMOND, Augusta, Ga.

April57—tf

NATIONAL AGRICULTURAL AND SEED  
Warehouse.

NO. 251 Pearl street (between Fulton and John streets), New York.

TREDWELL & JONES, Manufacturers, Importers and Dealers in all kinds of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and MACHINERY for Plantation use, invite the attention of Dealers and Planters to their large assortment of Implements expressly adapted for the South—comprising upwards of ONE HUNDRED and FIFTY different styles of PLOUGHS and Plough Castings, and patterns for Casting all kinds of Plantation Machinery.

FERTILISERS, FIELD and GARDEN SEEDS.

Any Implements, Castings or Machinery manufactured to order, at short notice, in a superior manner.

May37—tf

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are all ready to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, and all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

## PRICES.

2½ Horse Power.....	\$375
4 do. do. ....	500
6 do. do. ....	700
8 do. do. ....	900
10 do. do. ....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

D. C. LOWBER,

Feb57—ly

98 Magane St., New Orleans.

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Somerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska," a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1½ o'clock, A. M., and returns at 1½ o'clock, P. M.

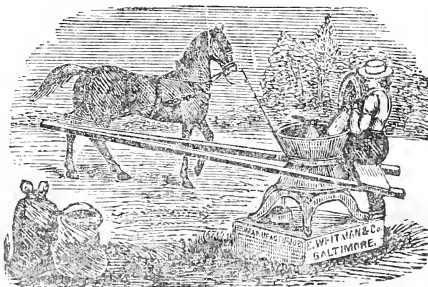
JAMES R. FERGUSON,

June56—tf

Memphis, Tenn;

## YOUNG AMERICA CORN AND COB MILL.

The Cheapest and best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

The YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.

JOHN & THOS. A. BONES.

March—tf

## PURE DEVONS AND GRADE DEVONS For Sale.

FOR sale the thorough-bred North Devon BULL CALF "Southerner," 5 months old, of fine form and proportion. Sire Keokuk (prize bull), and dam, "Lively Dame;" both Herd Book animals of undoubted pedigree.

Also, a pair of CALVES (heifer and bull) 5 months old, sired by the above Bull (Keokuk) and from excellent Short Horn or Durham Cows. For terms, &c., address  
June57—1f D. REDMOND, Augusta, Ga.

## TO SEEDSMAN, PLANTERS, &c.

THORBURN'S PRELIMINARY WHOLESALE PRICED LIST of Vegetable and Agricultural SEEDS, DUTCH BULBOUS ROOTS, DOUBLE DAHLIAS, &c., for the fall of 1857, is just published, and will be mailed to dealers and others requiring seeds in quantities, by enclosing a stamp for return postage.

This year's seeds, so far as harvested, are of prime quality, generally abundant, and prices correspondingly moderate.

J. M. THORBURN & CO.,  
Sept57—3t Seedsmen, &c., 15 John street, New York.

## WASHBURN'S PATENT AGRICULTURAL Implements

ARE unquestionably the greatest advance in the adaptation of labor-saving Machinery to the production of Cotton that has been made since the invention of the Saw Gin.

The COTTON and CORN PLANTER performs the entire operation of planting with one hand and one mule ten acres a day. It reduces the ridge, no matter how rough or cloddy, to a smooth oval surface; opens the drill to any desirable depth, equally in soft or hard ground; deposits the seed in any desirable quantity, all the seed taking position in line at the same depth and, therefore, coming up at the same time; closes the drill and tightly compresses the surface, leaving it free from clods, not liable to be uncovered or covered deeper by hard rains, and securing a perfect stand in the driest weather.

The combined SCRAPER and HILLER is a double-acting machine, doing the work on both sides of a row at once. When used as a Scraper, operated by one hand and two mules, it bars off and scrapes both sides of a row at the rate of ten acres a day in the most perfect manner, so as not to cover up cotton when it is just out of the ground.

It enables one hand and two mules to perform what now requires four hands, four implements and four mules. The same machine, when used as a Hiller, mounds both sides of a row at once, graduating to any desirable depth, the dirt placed around the young plants, so that a bare dirt d (not covered up) and the surface of the row left free from clods.

The operation of moulding young corn and cotton with this machine is performed with ease to the hand and team at the rate of ten acres a day. Both machines are made of iron and well seasoned white oak timber in the most durable manner, and will last indefinitely. All necessary repairs can be done on the plantation by an ordinary blacksmith and carpenter.

The whole crop of corn and cotton can be planted, scraped, moulded by the use of these machines with two-thirds the force now required, and the work better done than by any other method.

Our mode of business is to receive the Draft of the planter on his Merchant (or any one whom he may authorize to pay his Draft), payable on the first of January, February or March, and we will deliver the machines in time for use. Should the money be drawn and the machines not delivered in time for use we will refund it immediately on notice. Freight and forwarding charge must be paid by the customer, or they cannot be delivered.

Those who desire to use them next season should order immediately, as none will be made except to order, and the supply of material collected for these machines' manufacture will depend on the number of orders.

Several orders have been filled last season for want of materials owing to the lateness of their receipt.

The price of the Planter is \$50, the Combined Scraper and Hiller, \$50 each on delivery.

For Machines and County Rights, address

A. W. WASHBURN & CO.,  
Yazoo City, Miss.

## Testimonials.

On Friday last we visited Mr. James P. Sessions farm near Jackson, for the purpose of examining the agricultural implements, patented by Dr. A. W. Washburn, as well as to see them operated in the field by Col James J. B. White. We are highly gratified and pleased with each. The planter is unexceptionable, and performs its work with great speed and perfection.

We confidently recommend them to the patronage of all planters, believing that they are, as heretofore represented by many planters and overseers, truly labor-saving machines.

George S. Yergers,  
Madison McAfee,  
J. A. Horn,  
C. A. Moore,  
J. R. Harris,  
T. Graves,

J. M. Moore,  
G. W. Russell,  
Oliver Barrett,  
Howell Hobbs,  
R. N. Eubank,  
James P. Sessions.

"GOOD INTENT PLANTATION," DEAR CREEK, }  
Issaquena Co., Miss., Sept. 30, 1856.

To Col James J. B. White:—Dear Sir:—Having minutely examined, and further witnessed the operation of Dr. A. W. Wash-

burn's newly invented Cotton Planter, and Scraper, I take great pleasure in pronouncing them perfect and complete machines, for the work they are intended to perform; having extensively patronized them myself, I confidently recommend them to the use of all planters, believing they will insure and maintain a certain stand of cotton.

Yours very respectfully,

CHARLES J. FORE.

The undersigned have seen Dr. Washburn's Agricultural Implements in operation, and are satisfied that for speed and perfection of work, they surpass anything we have ever seen.

## PLANTERS.

Joseph Andrews,  
James J. B. White,  
George W. Woodberry,  
E. B. Rundell,  
A. G. Bennett,

## OVERSEERS.

D. H. Howson,  
J. B. Garrott,  
Wm. L. Clark,  
Jno. T. Judkins,  
H. G. Geeter.

It has been repeatedly said of the Planter that there is neither room nor need for further improvement. But we shall improve on those made heretofore in several mechanical points, which will render more attainable and still more perfect the complete result.

Finding the Chopper unimportant, we have discontinued it, and combined the Scraper and Hiller into one machine. This will cheapen the price of the set, save transportation, and make a more convenient as well as better Scraper. With the combined Scraper and Hiller, cotton may be scraped close to the drill, as soon as it is out of the ground, without being covered up, thus facilitating the rapid forwarding of a late planting, or preventing the establishment of an early stand of grass on land that has been in corn.

These improvements render Washburn's Planter, and Combined Scraper and Hiller the most valuable labor-saving implements ever offered to the cotton planter. The work of each, whether planting, scraping, or hilling, is done by one hand at the rate of ten acres a day in an efficient and uniform manner, surpassing in every element of perfection similar work done by any other means. They unquestionably pay for themselves in one year, while they last many years. The following is some of the testimony which the trial of these machines has elicited. It will be observed that some of the names are the same which were given last year. The reason of this is that their first opinions were formed on witnessing a mere experiment in our own fields, or where they might suppose the most favorable circumstances had been secured for exhibiting to advantage.

Now they testify positively of their own extensive use.

MONTEREY, YAZOO COUNTY, April 1, 1857.

I am planting with three of Washburn's Planters and am satisfied they do the best planting I ever saw. J. M. DEMENT,

Overseer for A. M. Payne.

April 1st, 1857.

I have tried Washburn's Planter and am satisfied with the work and recommend it to the planting community.

D. MCCURRY,

Overseer for Col. J. D. Stewart.

April 1st, 1857.

I have tried Washburn's Cotton Planter, and find that it is represented to be.

N. B. STREET,

Overseer for Joseph Andrews.

IVANHOE PLANTATION, April 13th, 1857.

Having used one of Dr. A. W. Washburn's patent Planters, I feel no hesitation in saying that the same works beautifully, so much so that in my opinion, he has left no room for further improvement in the way of an implement with which to plant cotton.

S. GROVES CHAMBERS,

Overseer for Geo. S. Yergers.

YAZOO COUNTY, May 3, 1857.

Dr. A. W. Washburn—Dear Sir:—I have secured a perfect stand of cotton under most unfavorable circumstances, by using your Planter.

JAMES P. O'RILEY,

YAZOO COUNTY, April 2, 1857.

Dr. A. W. Washburn—Dear Sir:—I have witnessed a thorough trial of your Cotton Planter. It performs admirably, and cannot fail to give universal satisfaction.

Very respectfully,

W. PARKER SCOTCH, Episcopal Minister.

WYOMING PLANTATION, May 28, 1857.

Dr. A. W. Washburn—Dear Sir:—Having thoroughly tested your Planters, both on the hill side and level lands, I feel no hesitancy in pronouncing them the best implements of the kind I have ever seen, and would recommend them to every planter who desires to secure a perfect stand.

Respectfully,

J. W. THOMSON.

Dr. Washburn—Dear Sir:—I have in operation on my plantation (which is hill-land with circled rows about 3½ to 4 feet wide) one of your Cotton Planters, and am fully satisfied with its performance. It does the work, in my opinion, perfectly.

C. BOWMAN.

Extract of a letter from Mr. W. Monroe Quin.

QUIN'S STATION, N. O. & J. R. R., }

Pike Co., Miss., April 27, 1857. }

Dr. Washburn & Co.:—I have planted my whole crop with your Cotton Planter, and upon the whole, I now think that it is as high perfect as can be made, and, to a practical planter, is bound to give perfect satisfaction, and work reformation among Southern agriculturists, as well as (I hope) to pay you well for your invention. With my best wishes for the further improvement and wide extension of what I consider now the best Agricultural Implements of the age, allow me to remain,

Yours,

W. M. QUIN.

YAZOO COUNTY, June, 1857.

I have used Dr. Washburn's Planter for planting, and his Hiller



for moulding cotton, in managing Dr. Woodberry's crop, and think too much cannot be said in their favor.

THOMAS VANCELEAVE.

INCHECA, near Yazoo City, June 10, 1857.  
A. W. Washburn & Co.:—I have planted considerably over one hundred acres of cotton with Washburn's Patent Planter; and have obtained a perfectly healthy stand under most unfavorable circumstances. I have also used the Hiller, which (after I had braced the plows) speedily relieved me from the danger of being injured by grass, by enabling me to mould from eight to ten acres a day with one hand, doing the work in the most perfect manner. It works easily to the hand and team, effectively and with the most beautiful uniformity. In short, the Planter and Hiller are unexceptionable and invaluable. I would not be without them in future were the price doubled.

YAZOO COUNTY, Miss., June 20, 1857.  
A. W. Washburn & Co.:—Gentlemen:—I have planted the entire crop under my management, corn, cotton, and some Osage Orange for hedging, with Washburn's Patent Cotton Planters. I have scraped and hilled it with his Scraper and Hiller, and have experienced no difficulty in obtaining the most perfect uniform and healthy stands I ever saw. I have had no lice or any other disease common to young cotton.

I have no hesitation in pronouncing Washburn's Planters, and Combined Scraper and Hiller the most valuable labor-saving implements for the field ever offered to the planter.

They work easily to the hand and team, and do the work thoroughly, and with a degree of uniformity and exactness, unequalled by any other method, and unimaginable by one who has not seen them work. They are very durable and easily kept in repair, and, in my opinion, will pay for themselves in one year.

M. S. INGRAM.

ST. FRANCISVILLE, La., April 28, 1857.  
Dr. A. W. Washburn:—Dear Sir:—I have used the Cotton Planter, purchased of you, and my neighbors as well as myself are very much pleased with its performance. I shall want two more for next season, and think there will be a demand for them in this Parish as soon as they become known.

H. H. CONNELL.

YAZOO COUNTY, June 24, 1857.  
A. W. Washburn & Co.:—Gentlemen:—I have used Dr. Washburn's Planter, and Scraper and Hiller this season, with unparalleled success. They are capable of securing a more perfect stand, while they do the work better than by any other means I have ever known. The Planter being already sufficiently perfect, the combination of the Scraper and Hiller into one machine, by reducing the cost and facilities, and improving effect, has left no room for further improvement.

I shall use them more extensively next season, and shall want some more machines.

Yours truly,

JAS. P. O'REILLY.

#### GRAPES FOR THE SOUTH!!!

THE subscriber offers for sale several thousand rooted Vines and Cuttings of the following varieties of Native Southern GRAPES, all of which have been proved to be fully adapted to the climate, and excellent both for Wine and the Table:

Isabella, Black July, Burzundy, (so called),  
Warren, Catawba, Scuppernon.

Gentlemen wishing to plant largely for Wine making, will be supplied with rooted vines or cuttings on very liberal terms. A plain, practical Treatise on the Culture of the Vine in the open air, as successfully practiced in South Carolina and Georgia will be freely mailed to all purchasers of vines; or to other applicants who enclose a postage stamp.

D. REDMOND,

Augusta, Ga.

#### HYACINTHS, TULIPS, DOUBLE

Dahlias, &c.

THE Subscribers offer this season a more extensive assortment than usual of Dutch BULBOUS ROOTS, imported from the best flower nurseries of Europe, in the finest condition, and all first class. Bulbs embracing every desirable variety of Double and Single Hyacinths, adapted for house and out-door flowering; Early and Late Double and Single Tulips of every shade and hue; Polyanthus Narcissus; Italian Narcissus for early winter blooming; Single Narcissus; Double and Single Jonquils; Crocus of all sorts including some very fine new named seedling varieties; Crown Imperials; Fritillarias; Gladioli; Iris; Lilies; Arums; Coliciums, with numerous other sorts of approved tested value.

Catalogues of the above, with descriptions and directions for planting and manuring, will be mailed to applicants enclosing a stamp.

HYACINTH GLASSES FANCY CROCUS ROOTS &c.

J. M. THURBURN & CO.

15 John Street, New York.

Sept 57—3t

#### GLOAMING NURSERY--CLARKSVILLE,

Habersham County, Ga.

THE Subscriber again offers to the public a fine and thrifty assortment of Southern raised FRUIT TREES, consisting of Apples, Peaches, Nectarines and ORNAMENTAL SHRUBS. The collection a diversity of Southern Seedlings is the largest and most select in the South, many of which are new and very superior and not heretofore offered for sale by any Nurseryman.

Catalogues containing prices, information on planting and routes for transportation &c. sent gratis on application by mail or otherwise.

[Sept 57—24]

J. VAN BUREN.

#### GRAPE CULTURE--VINEYARDS--WINE!

THE subscriber will receive and fill orders for Cuttings and Rooted Vines of the Catawba Grape, from one dozen to thousands. He will furnish either Southern Cuttings and Vines from the Vineyards of Mr. CHARLES AXT, and his own Nursery, or Western Cuttings and Vines from Cincinnati, at a reduced rate. The Isabella, Warren, Scuppernon, and other hardy Grapes, also supplied; in addition to a choice collection of the finest Foreign varieties, such as Black Hamburg, Muscat of Alexandria, Cannon Hall Muscat, Black Morocco, Syrian, &c., &c. Early orders solicited.

Full and complete Descriptive Catalogues of Fruit Trees, Vines, Roses, Shrubs, Evergreens, &c., with hints on culture, sent free of postage to all applicants. Address:

D. REDMOND, Augusta, Ga.

"Fruitland Nursery," August, 1857—4t

#### DEVON AND ALDERNEY CATTLE FOR Sale.

I OFFER for sale the following thorough-bred DEVON CATTLE, viz:

##### DEVONS.

3 Heifers, in calf to my bull "Springfield." (See Davy's Devon Herd Book, 2nd vol.)

1 Heifer in calf to same bull.

2 Heifer Calves and 3 Bull Calves, from same bull.

All these animals are out of Patterson cows, by Patterson bulls. Also, Bull "Springfield." (See Davy's Devon Herd Book.) Springfield gained the first prize at the Atlanta Fair, 1855, as a 2 year old.

##### ALDERNEY.

1 Alderney Bull 1 year old, out of an imported cow, and sired on the Isle of Jersey, by a 1st prize bull.

I can furnish undoubted pedigrees with all the above animals, and will deliver them at the Railroad Depot, at Athens, Ga., free of cost to the purchaser. Address

GEO. H. WARING,

Sept 57—4t

Clarksville, Ga.

#### FRUITS AND FLOWERS FOR THE SOUTH!!

"Fruitland Nursery," Augusta, Ga.

I SHALL offer, the coming fall, for orchard and garden planting, an unrivalled collection of

Apples, Apricots, Almonds, Peaches, Cherries, plums, Nectarines, PEARS!

Grapes, Pomegranates, Strawberries, Figs, Raspberries, Blackberries, Hedge Plants, Roses, Evergreens, &c., &c.

In short, everything new, desirable and adapted to our climate.

Descriptive and Priced Catalogues mailed free of postage to all applicants. A Supplemental Catalogue (containing many new and rare Fruits found in no other collection) will be issued early in September and freely mailed as above. November, December and January are the best months for transplanting. All orders and letters containing remittances acknowledged by return mail. Address:

D. REDMOND,

Sept 57—4t

Augusta, Ga.

#### GARDENING FOR THE SOUTH

THE work, securely enveloped, will be sent by mail (pre-paid) to any person remitting at the rate of one dollar and twenty-five cents per copy in postage stamps, or in the bills of any specie paying Banks. Address

WM. N. WHITE,

May 56—4t

Athens, Ga.

#### SHEEP FOR SALE.

ONE very fine half French and half Spanish MERINO BUCK, one year old. Also, two superior pure breed yearling SOUTH DOWN BUCKS of the Webb stock.

June 56—4t

RICHARD PETERS, Atlanta, Ga.

#### CENTRAL RAILROAD.

CHANGE OF SCHEDULE.

On and after Sunday, the 14th October, inst., and until further notice, the Passenger Trains on the Central Railroad will run as follows:

##### BETWEEN SAVANNAH AND MACON.

Leaves Savannah Daily at 5:00 A. M. and 12:15 P. M.  
Arrive in Macon " 2:15 P. M. " 1:00 A. M.  
Leave Macon " 11:45 A. M. " 9:10 P. M.  
Arrive in Savannah " 10:45 P. M. " 7:20 A. M.

##### BETWEEN SAVANNAH AND AUGUSTA.

Leave Savannah " 12:15 P. M. and 9:30 P. M.  
Arrive in Augusta " 8:45 P. M. " 5:30 A. M.  
Leave Augusta " 6:00 A. M. " 4:30 P. M.  
Arrive in Savannah " 12:00 P. M. " 10:45 P. M.

##### BETWEEN MACON AND AUGUSTA.

Leaves Macon " 11:45 A. M. and 9:30 P. M.  
Arrive in Augusta " 8:45 P. M. " 5:30 A. M.  
Leave Augusta " 6:00 A. M. " 4:30 P. M.  
Arrive in Macon " 2:15 P. M. " 1:00 A. M.

##### BETWEEN SAVANNAH, Milledgeville & Eatonton.

Leave Savannah " 5:00 A. M.  
Arrive in Milledgeville " 2:45 P. M.  
Leave Macon " 11:45 A. M.  
Arrive in Eatonton " 5:00 P. M.

W. M. WADLEY, Gen'l Superintendent.

Savannah, Ga., Oct., 12, 1855.

July 56—4t

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## ESSEX PIGS FOR SALE.

THE Subscriber now offers for sale a number of Spring PIGS of this popular breed, singly or in pairs, well fitted to breed together. They were sired by the English first prize Boars, "Chelmsford" and "Brum," which were imported last autumn, at a cost of over \$400. The pigs are a very superior lot, and will afford a new cross on those descended from previous importations.

Address C. S. WAINWRIGHT,  
Oct57-2t The Meadows, Rhinebeck, New York.

1858!

1858!

## SOUTHERN CULTIVATOR,

A MONTHLY JOURNAL,

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK  
BREEDING, POULTRY, BEES, GENERAL  
FARM ECONOMY, &c.

DANIEL LEE, M. D., and D REDMOND, Editors.

The Sixteenth volume commences in January,  
1858.

## TERMS:

ONE COPY, one year.....\$1 | TWENTY-FIVE COPIES..\$20  
SIX COPIES, ".....5 | ONE HUNDRED COPIES.. 75

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## ADVERTISEMENTS

Inserted at ONE DOLLAR per square of 10  
lines, each insertion; One square per annum,  
TEN DOLLARS.

ADDRESS WM. S. JONES, Augusta, Ga.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

## GEORGIA RAILROAD.



## CHANGE OF SCHEDULE.

## PASSENGER TRAINS.

LEAVE Augusta, daily at 6 A. M. and 5 P. M.  
Arrive at Augusta daily at 5 A. M. and at 6 P. M.  
Leave Atlanta daily at 8.50 A. M. and 6.15 P. M.  
Arrive at Atlanta daily at 2.50 A. M. and at 3.36 P. M.

## CONNECTING WITH ATHENS BRANCH.

Arriving and leaving Union Point daily (Sundays excepted) at 10  
A. M. and leaving at 2.30 P. M.

## WITH WASHINGTON BRANCH.

Arriving at Cumming daily (Sundays excepted) at 9 A. P. M.  
Leaving " " 3.30 P. M.

## WITH SOUTH CAROLINA TRAINS.

Leaving Augusta daily at 9.20 A. M. and 9.50 P. M.  
Arriving at Augusta daily at 3 P. M. and 4.30 A. M.

## WITH ATLANTA AND LAGRANGE RAILROAD.

Leaving Atlanta daily at 3.30 A. M. and 4.45 P. M.  
Arriving at " 7.55 A. M. and 5.35 P. M.

## WITH WESTERN AND ATLANTIC RAILROAD.

Leaving Atlanta daily at 9 A. M. and 6 P. M.  
Arriving at " 3 A. M. and 3 P. M.

GEO. YONGE, General Superintendent.

July 14th, 1855.

Aug55-1f

## FRUITS, FLOWERS AND SHRUBS FOR THE SOUTH!

1857-8.

FRUITLAND NURSERY, AUGUSTA, GA.

1857-8.



THE SUBSCRIBER offers for Fall and Winter planting, choice TREES of the following kinds, all of which  
have been proved to be well adapted to the South:

APPLES—a complete succession, ripening from June until December, and keeping throughout the winter  
and spring; mostly Southern Seedlings, and many new and rare. Price, 25 cents each—\$20 per hundred.

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D. REDMOND, Augusta, Ga.

# SOUTHERN CULTIVATOR.



DEVOTED EXCLUSIVELY TO THE IMPROVEMENT OF SOUTHERN AGRICULTURE.

VOL. XV.

AUGUSTA, GA., DECEMBER, 1857.

NO. 12.

WILLIAM S. JONES, Publisher.

DANIEL LEE, M. D., and D. REDMOND, Editors.

See Terms on Last Page.

## Plantation Economy and Miscellany.

### WORK FOR THE MONTH--DECEMBER.

#### THE PLANTATION.

*Cotton Picking* ought to be finished, early this month, and the balance of the crop packed and sent forward to market, so that the planter, and his hands may have a little leisure before commencing the next year's labors. Cotton planting, necessarily laborious, is made much more so by the "never ending, still beginning" system of most of our planters. Let our readers, who are particularly interested, begin the reform at once.

*Corn* land of last year, intended for the same crop next year, should be broken up thoroughly and deeply; and if stiff, bedded up and exposed to the ameliorating influence of the winter's rain and frost. Plow across the furrows of last year, and subsoil, if possible. Land cannot be made too deep and rich for corn—it is a gross and exacting feeder. Clear up, also, some good new, fresh land for the coming corn crop.

*Wheat, Rye, Oats and Barley*, may also be sown yet, but the sooner the better. Note what has been heretofore said about "thorough preparation of the soil," and put your seed in right. Manure heavily, plow deep, and pulverize as fine as possible.

*Fruit Trees* of all kinds should be set out during December and January, if possible. For directions, see articles in previous numbers, and for the proper selection of trees consult the Catalogues of the various Southern Nurserymen, whose advertisements will be found in our pages. One good Southern seedling fruit tree, worked on a native Southern stock, is worth half a dozen of dwarfish, slow-growing foreign trees.

*Hedges* of all kinds should now be planted. See list of plants and directions in November number.

With the closing year, close up all accounts; open new books, and make a fresh start with the new year which is approaching.

#### THE GARDEN.

Sow *Cabbages, Turnips, Parsnips, Lettuce, Carrots, Radishes, Onions* (black seed), *Parsley, &c., &c.* Haul

plenty of manure on your garden, plow it under deeply; or, better still, have it well spaded, burying under all animal or vegetable matter. Cover up the Globe Artichoke with litter and pine boughs. Dress and manure your *Asparagus* beds, not forgetting to give them a liberal top-dressing of salt before spring. Save all old bones, soap-suds, dead leaves, decaying vegetables, &c., &c., and make up into compost heaps for future use. Plant choice Fruit Trees, selecting varieties which are known to be adapted to the South, and begin pruning your fruit trees and grape vines. Our Southern Nurserymen have paid especial attention to the propagation of choice varieties, and will probably be able to supply all orders.

*Strawberry Beds*, for spring bearing, may also still be planted, according to directions given last month.

#### THE NURSERY AND ORCHARD.

Propagate all the choicest and best varieties of *Southern Fruits*. The Quince, the Fig, the Grape and the Pomegranate grow readily from cuttings, when planted in moist shady ground. Now is the best time for planting Orchards.

Look over your bearing Peach trees, and where the exudation of gum betrays the presence of the borer, apply boiling water, as the best remedy for destroying him. We have poured as much as 14 gallons of boiling water around the stems of small peach trees, after which they grew beautifully.

GRASSHOPPERS AND LOCUSTS.—Is it too late to arrest the misuse of these words in the United States? The seventeen year insects, and the dog-day fly, of similar appearance, are not locusts, as they are commonly called. They are harvest flies, or cicadas. The word grasshopper belongs to a tribe of insects that fly, chiefly by night, of which the katydid is a familiar example. The insects which are in America called grasshoppers are in reality locusts, as their ravages in the Far West would prove to any man acquainted with Bible antiquities. Grasshoppers have four joints in their feet, and the females have piercers, or swords; locusts have three joints in their feet, and the females no swords; they fly much better than grasshoppers, having narrow wing-covers and larger wings. The Californians, the creatures in Utah, the men in Kansas, the farmers in the old States, are trouble with locusts. Grasshoppers are rarely destructive, being found in large numbers only in moist meadows. They unjustly, in America, bear the blame of what the locusts do. H.

**HOGS---CHINESE SUGAR CANE, &c.**

EDITORS SOUTHERN CULTIVATOR—I have been a subscriber to your excellent paper for several years. While I am sending you my subscription for 1858, I desire to ask a little information of you or one of your correspondents, relative to the Chinese Sugar Cane. I have an abundance of the seed, and calculate on planting a portion next year for green food for my hogs. I have understood recently that the Chinese Sugar Cane, like the Pea, generates disease. This is the point I desire instruction on: Is the Chinese Sugar Cane wholesome food for hogs?

If you deem the above of general importance sufficient to give it a notice in the *Cultivator*, please answer. I have the pleasure of subscribing myself your well wisher,  
S. McR.

*Louisville, Weston Co., Miss., Nov., 1757.*

[We have no doubt of the wholesomeness and great economy of the Chinese Cane, as a green food for hogs and all other domestic animals, and intend planting it very largely next year for successional green or "soiling" crops, for all our stock. See the very conclusive letter of our friend, G. D. HARMON, elsewhere on this subject.—Eds.]

**CHINESE SUGAR CANE FOR HOGS.**

EDITORS SOUTHERN CULTIVATOR—In order to test the value of Chinese Sugar Cane as food for hogs, I made the following experiment:

In September I weighed two shoats and put them in separate pens. No. 1 weighed, when put up, 76 pounds. It was fed on what corn it would eat and slops from the kitchen. No. 2 weighed 73 pounds, and was fed exclusively on Chinese Sugar Cane, seed and all.

They were fed something over three weeks, and again weighed. No. 1, or the shoat fed on Corn, weighed 115 pounds, having gained 39 pounds. No. 2, or the shoat fed on the Sugar Cane, weighed 110 pounds, having gained 37 pounds.

This result shows that Chinese Sugar Cane is very near equal to Corn, as food for hogs. And take acre for acre, and Sugar Cane is very far superior to Corn, from the fact that it will produce at least five times as much. In other words, 5 acres of Sugar Cane is equal as food for hogs, to 25 acres of Corn. Yours, &c.

G. D. HARMON.

*Utica, Miss., Oct., 1857.*

**CHINESE SUGAR CANE AND IMPHEE.**

EDITORS SOUTHERN CULTIVATOR—Below you will find the translation of a highly interesting letter which I lately received from Mr. Vilmorin, of Paris. This gentleman's name and reputation are so well known to Agriculturists, Horticulturists, and to scientific persons all over the world, that it is useless to comment upon him. His house is the first in the world, in its line:

PARIS, June 27th, 1857.

The Sorgho Sucre with black seed, (or Kao-Lang) from China, has been experimented upon in France since four years, and all leads us to believe that this plant is destined to a great future, as much for the manufacture of sugar as for that of alcohol. Of all the different kinds which have been tried, it is the richest in sugar (with one single exception), and the easiest cultivated.

The several Caffraria (or African) Sorghos imported by Mr. L. Wray, differ from the Chinese Sorgho by the color of their seed, and their principal vegetative characteristics—their stems or stalks are generally larger and their leaves broader and nearer on the stalks and the bark is thinner, which, in some cases is an advantage, but this

renders them more difficult to preserve or keep any length of time. Finally, and this is the most important point in all the experiments which I have made upon them, they have always proved themselves much less rich in sugar than the Chinese Sorgho. The most careful analysis which I have made of them, upon stalks raised in the South of France, compared to that of Chinese Sorgho, grown under the unfavorable climate of Paris, has given me for result more than double the quantity of sugar for the Chinese; that is to say: where the Imphee or African Sorgho would give five pounds of sugar, the Chinese Sorgho would give eleven.

I have considered the introduction into France of the Imphees and of some other new varieties imported by the "Societe d'Acclimation," as a great misfortune: for now the efforts of experimenters will be scattered without profit upon plants which seem to me infinitely inferior in their general qualities to the Chinese Sorgho, and it would be a great misfortune that the same thing should happen in America, and that the Chinese Sorgho, or the Kao-Lang, should be mistaken for or mixed with the different kinds of Imphee or Guinea Corn, which all contain some sugar, but in quantities too small to be profitably cultivated.

The "Sorgho Sucre," the seed of which has been distributed with much liberality since 3 years by the Patent Office, is of Chinese origin, and can be known by its seed which is "dark purplish," while that of the Imphee is brown and a little more angular, and the seed of the Dourah is reniform and bi-lobed, and generally of a paler color.

The only plant which has, so far, shown itself richer in sugar than the Sorgho Sucre, in my experiments, is a plant of the section of the Dourahs (that is with pendant ears or shoots) which I received from San Francisco, under a name evidently incorrect. But before recommending it, I must study it and learn more of it.

We have tried but three of the American Grapes—the Scuppernong, the Catawba and the Isabella—the last is the only one which has found favor with us, as the peculiar flavor of the two others is unpleasant to our French palates.

[Signed] LOUIS VILMORIN.

I think the above letter well worth publishing, and should you differ please return it, that I might have it published elsewhere.

Thus it seems that the Imphee, which has been very forcibly brought, and kept before the public eye, turns out to be far inferior to the ordinary Sorgho, and is placed in the same rank as to its qualities for sugar, with the common Guinea Corn, so well known to every body; and the very gentleman, the most scientific in that line probably in Europe, whose name was brought in support of it, very plainly condemns it. We would call upon the gentlemen who have been induced to plant the Imphee (only three, we believe, had seed furnished them) to make fair trials of its qualities and to give us the result; for, as Mr. Vilmorin observes, it were a thousand pities that an inferior plant should supercede, or get mixed with that most valuable Chinese variety. Should the Editors wish to see the original letter, some parts of which I have not published, I will enclose it to them.

A. C.

*South Carolina, July, 1857.*

**SORGHO AND IMPHEE.**

EDITORS SOUTHERN CULTIVATOR—In addition to the translation of a letter, dated from Paris, and which I sent you for publication, will you please insert the following extracts from another letter from the same gentleman, dated October 8th, 1857, which has just been received.

A. C.

*Sir*.—On my return home from a journey into Switzerland, I found the several varieties of Sorgho which I have under cultivation, nearly ripe and ready for the experiments I had determined to make upon them. These comprise a greater number of varieties than were tried upon last year. I have postponed writing, in order to give you the results for the crop of 1857.

Generally speaking, the juice is a little less rich in sugar than it was last year, but the proportions between the different species remain the same. The richest juice in sugar is that of a small species of the group *H. Cernuus*, which I have received from San Francisco, under the name of Egyptian Corn. But its small size and the dryness of its marrow will more than counterbalance its sweetness, and render it unfit for profitable culture; and besides it loses much of its quality when the seeds approach maturity.

The true Sorgho Sucre, Kaoleang of China, comes next; its stems are high, juicy, with thick rind, which preserves the juice from mouldiness or from the "red rot." Some plants of this species already show improvement in the quantity of sugar, by the seed having been selected from the richest plants of the previous season.

The Imphees of Mr. Wray, are vigorous and of beautiful growth, but the leaves take too great a share of the vegetation; the stems are brittle, the rind is thin and easily torn or split by the action of wind or transportation, and mouldiness and "red rot" are very injurious to them. The density, and the saccharine richness of the juice are also very weak.

In this experiment as well as in former ones, the Chinese Sorgho has invariably proved itself far superior.

The further South we go the more does the proportion of sugar increase in the Sorgho. Under the climate of Paris it yields from 13 to 14 per cent. of sugar; in the South of France, 16 to 18; and in Algeria from 20 to 21. Here the Imphee gives 5 to 6; in the South, near Bordeaux, it gave 7; while the Sorgho gave 16. I have not yet heard from Algeria as to the Imphee, but from what I have seen of this plant, I suppose it will attain its full maturity only in equatorial regions.

In a small pamphlet which I published in 1854, on the Sorgho (and of which I send you a number,) I remarked that the Chinese Sorgho, by its habits, seemed to be the very plant for the production of sugar and alcohol, so much needed between the Southern limit of the profitable culture of the Beet, and the Northern limit of the Sugar Cane. This is not the case with the Imphee, which will acquire sufficient sweetness only where the Sugar Cane thrives.

I consider it a great misfortune that this latter plant should have been introduced among us; and, of the two plants, that of which newspapers will speak most, will be the most planted, and should the experiments on the one be unfavorable, very few will be tempted to renew them upon the other, and thus the extensive culture of the truly valuable Sorgho might be much retarded. This at least has been the case here.

LOUIS VILMORIN.

#### THE SPIRIT OF AUTUMN.

OUR brother, HARRIS, of the *Ohio Cultivator*, is happy in the association of a gifted daughter of New England, who is known to the public as "*Cultivator Mary*." This lady has been spending some time among her native hills, and we present from her last letter to our Ohio namesake, the following sweet, pensive, and beautiful picture of the Northern Indian Summer. It is a "prose poem"—a rare specimen of "word painting," which we commend to the enjoyment of all appreciative readers:

Opposite my window stretches a long, broad orchard, bounded by a rude stone wall. The apple trees are bending with their burden of ripe fruit. The corn is ready

to be gathered, and the shocks are rustling in the wind. Down the hill, by the old farm-house, lies a pile of golden pumpkins, and against the fence stands a rack with its string of quartered apples drying in the sunlight.

The glory of the harvest time is here. The richness and brilliance of summer, its ardent heat and gay verdure have softly changed and melted into the pensiveness of autumn.

We rode into the country yesterday. By the side of the Merrimac, up among the hills, through long, shady lanes, and by the gorgeous forests. A soft, beautiful haze hung over the hills and woods, and some of the fervency of summer still lingered in the autumn breeze. A strange, sweet spirit enters your heart when your vision takes in such silent beauty, for your buried dear ones come before you with all that was gentle and lovely in their characters.

Your better self triumphs over your grosser nature, and all the beautiful thoughts and hopes that you have cherished in your heart as too frail and sacred to be defined to a mortal friend, develop beneath this strange influence, just as music awakes a rapture within, that language can never express!

The boughs of the elms and maples bent above us, and their leaves, crimson, orange, and tenderly streaked with green, drifted down upon us as silently as the angels drop blessings down upon this anxious world!

Death does not seem so stern a thing amid this gradual, beautiful decay. Why should it? The promise of the spring-time is fulfilled, and faithful nature glows with the consciousness of its perfect trust. Just as heavens gleams in the last look of the righteous, so she puts on her beautiful robes, ere she gathers them up, and lays down in her shroud for a season of rest.

#### INTERESTING ARTICLE ON MULES.

BY B. MUNROE, WOODFIELD CITY, KENTUCKY.

*Mr. Editor*.—Supposing that little is known among the generality of your readers as to the extent of the mule business in this State, I concluded it would not be uninteresting to them to learn concerning it, and something of the character of the beast itself, as I take it for granted they have not had an opportunity of learning all his phrenological developments or temperament.

The mule trade is one of the largest of Kentucky, and affords one of her chief sources of revenue. The increasing demand for them in the South among the sugar and cotton planters (which is owing, no doubt, to the great number of farms annually being opened in that section,) affords a very easy solution for the eagerness and extent to which stock-growers launch into the trade, for it is a heavy business, requiring a great deal of capital. The mule is fed from weaning time, (which is generally at the age of five or six months,) to the full extent of its capacity to eat, and that, too, on oats and corn, together with hay and fodder. In lieu of the long food, soiling is usually adopted in the summer, as they are kept confined in a pound or paddock, containing an acre or two of ground, which is usually partially shaded, in herds of one hundred or one hundred and fifty. In this way they are kept until the fall after they are two years old, receiving a sort of forcing hot-house treatment. At this age they are taken to the Southern market, not always by the feeder, but more generally by the speculator or "trader;" there they are sold to the planter entirely unbroken. The planters are too cautious to buy a broke mule, lest it should prove to be an antiquated, broken down beast, fattened up, and sold for a young one—as it is more difficult to judge of their ages than that of a horse. The external marks of time and service are not generally so apparent upon them. But it is a small job to break a mule. It is only necessary



have a steady horse to work them, with a second hand to drive them an hour or two to keep him up, after which, he is considered ready for any service that the farmer may require of him. He may kick once or twice, but is unlike the spirited horse, who when he commences is apt to kick himself out of the harness before he stops.

There were in this county, in the year 1855, 2,000 mules; in 1856 there were 2,888; the number in the county at present I have no means of ascertaining, but suppose it is at least as great perhaps, as any previous year. The probabilities are that all of these, or as many, were fed in this county each year. The counties immediately around, no doubt, fed equally as many, some no doubt more. The counties of Bourbon, Fayette, Clark and Jassamine, are engaged quite as extensively in the trade as this.

Besides the great number of mules fed annually in these counties, we supply New Orleans, New York and other cities with an immense amount of beef, mutton and bacon. These facts being considered, you may readily imagine that we must of necessity be a grain grown people. Such is the fact. Yet so extensive is the mule business, and so great are the profits upon feeding, that those engaged in the trade can afford to give 40 cents per bushel for corn—at least they say so—and cannot get it for any less.

In this portion of Kentucky, a lot of mules is almost considered a legal tender; no man is afraid to buy mules at a little less than he thinks they are worth if he has anything to feed them on, for he knows that some buyer will come along in a few days and pay him a small profit on the first cost and the grain they have eaten. It is not unusual for a farmer to borrow money out of banks on four or six months' time, to pay for a lot of mules to eat up his surplus of provender, knowing that it is more profitable to do so than to sell the surplus at home.

As a consequence of this great mania, if it might be so called, and which has now existed for several years, good horses have become comparatively scarce, saddle and harness horses commanding the most exorbitant prices, the sports of the turf were in a perfectly collapsed state, the best stallions were poorly patronized, and mares of finest form, the purest strain and most brilliant escutcheon, were basely "prostituted to the forced and ignoble embraces of the assinine ravisher."

The average price of weanlings is about \$75. No. 1, from \$80 to \$90, and extra, often as high as \$120. A lot will often change hands as often as a dozen times before ready for market. Yearlings will average I suppose about \$100, owing in a great extent, however, to their quality. At two years old they will bring \$125 or \$130; if they are average select lots, more. A neighbor of mine is feeding a lot of one hundred, for which, I am told, he has refused \$165 around. But this is an extra lot, no doubt the best lot in Kentucky. The same gentleman gave, a short time ago, \$300 for at two year old to work to his sulkey, and is working to his wagon on his farm four, for which, I am told, he paid \$200 each. Another gentleman of this county sold, a short time ago, a two year old mare mule for \$100. But these are fancy prices for fancy mules; there is a small and inferior class of animals that are considered a sort of dead heads, and which the feeder won't buy if offered alone, and these are ones usually found in service on the farms.

Until forced by the scarcity and high price of horses, the Kentuckians would not use mules. But within the last few years they have become common on the farm, pulling plow and wagon, and occasionally a clever pair is seen in the carriage; some of them are pretty glib goers for an hour or two, when they get lazy, and they will then take the lash "like a mule."

Persons who have tried them on their farms are better pleased with them they say, than they thought they would

be. They never get sick, rarely ever get lame, will do as much work as a horse which will cost twice as much money, and at the same time will subsist on less and more inferior food; for a mule will work very well on wheat straw and corn shucks, whereas the horse must have grain as well as a good allowance of long food. They are better for our servants to handle, as they can stand neglect and violent treatment better than the horse, and a blemish such as the loss of an eye, does not impair his value as much as that of the horse.

As to their temperament and peculiarities, it is useless to say much; the world knows pretty much what they are. He is not so apt to run as the horse, but more apt to kick, viz: until broken. He is fond of company, is decidedly gregarious, and his attachments are quite as strong when once formed as those of the horse. It is almost impossible to confine one away from an associate. He will climb over the fence if practicable, like a dog, or if more practicable creep through a crack, or worm himself under it like a pig. An acquaintance of mine told me that he was once in the habit of working a pair together, but on one occasion wishing to use but one, he confined the other in a close stable, where as he thought he would be compelled to remain. But on his return, he found to his astonishment, that the perverse beast had ascended into the hay loft, which enterprising feat it had accomplished by first getting into the trough, thence through the hole left to throw the hay into the manger. The circumstance forcibly reminded him of the fact that the

"Best laid schemes of mice and men,  
Aft gang agree."

And at the same time convinced him that if perseverance will not overcome all things, it will at least surmount a great many seemingly unsurmountable obstacles.—*American Veterinary Journal*.

#### TO THE PLANTERS.

THE Banks of Savannah and Augusta, and their Agencies in this city, have evinced a willingness to do their part towards putting the wheels of trade in motion. That is to say, they are now in condition, and are ready to furnish money to pay to Planters for their cotton; and it is now the duty of Planters to come forward, meet buyers and sell at least a portion of their crop, and let it be sent forward to the markets of the world. Do not lose sight of the fact that 10 or 12 cents is a good price for cotton. At this price, the present light crop will put into circulation a large sum. The sale of one thousand bales of cotton per week in this market for the next eight weeks, would produce a wonderful, and very agreeable change in the business of this city and the surrounding country. Do not let the late quotations for cotton in Liverpool induce you to hold back your crops. Prices will probably rapidly decline in Europe on receipt of the news of our financial embarrassments. We shall not be surprised to hear in less twenty days, that the Bank of England has suspended, to keep its specie from leaving its vaults for this country. These are our views. We wish them to pass for just what they are worth, and no more.—*Macon Jour. & Messenger*.

COTTON.—The cotton crop is about to prove considerable larger than was anticipated a month ago. Indeed we have heard it surmised that it may not, after all, fall much short of an average yield. If so, it may well be that the price will not rise much, if any, above the present notch, which we believe is 12 1-2 cents per pound. Should this supposition be well founded, it will at once occur to our planters that the best policy is to sell immediately. They will, at 12 1-2 cents per pound, reap an ample return for their labor; and the crop, at that price, will make money abundant, perhaps relieve the whole country from

the pressure under which it now groans. If so good an end is to result from selling, and no gain (in the way of advanced prices) is likely to accrue to the planter by delay, we suggest that it is the point of patriotism, as well as prudence, to put the crop in circulation, if we may so speak, at the earliest possible day.—*Edgefield Advertiser*.

### THE SEASON---AUTUMN WOODS, &c.

A New York correspondent of the *National Intelligencer* thus describes the gorgeous yet melancholy loveliness of the Northern forests in autumn:

"After a few days of stormy weather our Indian summer seems fairly to have set in. A more poetic pen than mine might fail to give you any just idea of the gorgeous beauty of the shrubs and forest trees in the suburbs of the city. This is especially the case on Staten Island, some seven miles down the bay. I have spent a day or two there each October at the residence of a friend, but it seems as though the splendor and variety of the autumnal tints this season exceed those of any former year. Perhaps it is—for we have mysterious sympathies—that with one's advance in life his feelings assimilate more with the 'mellow autumn,' and he is more susceptible of those sad and tender sentiments that are ever evoked by the falling of the leaf. Be that as it may, it seems to me that never was creation's aspect so transcendently gorgeous as now. There is no color too delicate, no shade too deep, no hue too bright for Nature's laboratory; and in all these, in every-varying intensity, is the surrounding foliage touched and decorated by the 'hand of God'—crimson, and gold, and sombre brown, and deepening purple, and delicate primrose, and deep orange, and brilliant vermilion—all blended yet distinct, commingled yet separate, and gleaming with a glorious sunlight and a cloudless cerulean sky. With such accomplishments it scarcely evokes a sigh to exclaim, 'We all do fade as a leaf.' Let me express the hope for yourselves, your readers, and your correspondent, that when the cold hand of death touches us, like a frost the leaves, and we silently fall to the waiting earth, it may be physically and morally, around and within amid such glory and grandeur."

And our lively and genial brother, SIMKINS, of the *Edgefield Advertiser* (the spiciest and most readable paper in the "rural districts" of the Palmetto State!) characteristically remarks:

"THE WEATHER—WINTER COMING.—Bright, bracing autumnal weather is with us. The early frosts have fallen, and the atmosphere is pure and bland. The zephyrs are now of the Boreas family. They have banished their sisters of the 'sweet South,' but are yet not unlike them in the pleasure-bringing qualities, of freshness and balminess. But soon they will go up into wintry winds. Soon, they will bring upon us the icy coldness of the North. Soon the face of nature will be deadened by their benumbing influences. Soon the good mother earth will be clad in gray, with icicles pendent from her stiffened tresses, and blue noses snorting her praises on all sides.

"Chop the logs. Pile up the wood. Chink the cracks. And shut the door behind you. For winter is at hand."

**LIQUID MANURE.**—Manure water is a great assistance, judiciously applied, to plants in pots, particularly to increase the size and coloring of flowers, if given when the flower buds are swelling and before they expand. An excellent manure water for this purpose is made by mixing one ounce of guano and two ounces of super-phosphate of lime in four gallons of water, previously stirring it well, and using it when it has become clear. This is quite strong enough, and should be given alternately with pure water.

### AGRICULTURAL.

It is contemplated, as we are informed, to get up Agricultural Clubs throughout our District, adjunctive to the District Society. This is an admirable idea and we hope will be carried out. There is already such a Club in existence in Beech Island. The members meet monthly, when they discuss agricultural topics, throw out agricultural suggestions, and eat a good agricultural dinner.—Why should not the various other neighborhoods of our large and intelligent District do likewise? There are the neighborhoods of Liberty Hill, the Dark Corner, Red Hill, the Pine House, the Ridge, Mt. Willing, Coleman's, Cambridge, Red Bank, Horn's Creek, Stephens' Creek, and others, in all of which it would be entirely practicable to form such Clubs. Much good as well as pleasure would result from their formation, especially if they should all regard themselves parts of the General District Society and, as such, send up monthly reports to the Central Secretaries, either for publication in this paper, or to be read at the quarterly meetings of the District Societies to be held at this place. Will not our spirited and thorough-going planters and farmers take hold of this idea and act upon it forthwith? Nothing could be more serviceable to the condition of our people whether in an agricultural, a social, or an intellectual point of view.—*Edgefield Advertiser*.

### BOTTS AND COLIC IN HORSES---TURNIPS, Sweet Potatoes, &c.

**EDITORS SOUTHERN CULTIVATOR**—Upwards of thirty years ago, an old Dutchman told me, that if I would give my horse a table-spoonful of powdered Alum once every three months, that he would never die with the Grubs or Botts. I have followed his directions, and it has not failed yet. For the Colic, I bleed largely, and then give Alum and put Asafetida on the bridle-bits, and give him some inwardly. If that fails, I try other remedies.

I sowed turnip seed one fall, and in a few days they came up finely, and in a few days more, they were eaten up by insects of some kind. I proceeded immediately to re-sow the same piece of ground, and as soon as I was done sowing, I took a few bushels of lime and sprinkled it over the ground until it was white as snow. The turnips came up in the midst of this lime and did finely; not one was eaten by the insects.

Raise a piece of ground circularly, larger or smaller, according to quantity you wish to put up, cover this with cornstalks, and then dig your potatoes and place them on the stalks, sun them or not, as you please, that makes no difference. After you get piled there as many as you wish, then cover them with cornstalks. Cut your stalks a proper length, so that when you stand them up by the pile they may just reach the top, and after you have covered them with stalks, then cover them six inches with dry dirt and then build a square rail pen around them as high as a man can, throw up straw or shucks and fill the pen completely and then cover with boards as you generally cover shucks. In this climate, this is the best way that I know to save them. You may think that they will sweat and spoil. They will certainly keep good.

STUTTERS.

Polk County, Ga., Sept. 1857.

**SPECIE FOR GUANO.**—Since the suspension of the banks there has been considerable excitement among the purchasers of guano, on account of the demand made by importers for specie funds in payment for guano purchased before the excitement. Several parties who had bought to arrive, on the demand for specie funds, have thrown up their contracts and refuse to receive—the difference between specie funds and current funds here making the price about \$66 per ton.—*Alex. Gaz.*

## BILL BUG OR CORN BORER.

EDITORS SOUTHERN CULTIVATOR.—In the September number of the *Cultivator* there is an article from a Saluda Planter on a subject of much importance to all the low land corn planters on the sea board (I say sea board, not having ever heard any complaints from the upper parts of the State, and do not know if they are common except in the region of country bordering the sea coast.) I allude to what he calls the Bill Bug, or Corn Borer. This insect, which, he says, has been erroneously called the Bud Worm, is the same, no doubt, so much deprecated by corn planters in this region. The Agricultural Society of this county has been offering, for several years past, a premium of \$75 for the discovery of a preventive for the ravages of this enemy of the corn plant. Your correspondent recommends the destruction of the Rag Weed as being a preventive. Not knowing that plant by the name he gives it, will he or some other person acquainted with it, describe it more particularly, and give, also, its botanical name? and, also, whether the fly or bugs, after leaving the young corn, do not infest other plants, and what ones?

Any information that will lead to the discovery of a remedy for the destruction of this insect would be conferring on corn planters in this part of the country an incalculable benefit.

A LIBERTY PLANTER.

*Liberty County, Ga., Sept., 1857.*

THE PROSPECT OF PRICES.—The commercial editor of the *Fayetteville Observer*, appends the following remarks to a late report, which we give for the consideration of all interested, and in reply to inquiries that are heard in all directions:

*Cotton.*—We are often asked, when shall we sell our Cotton? It is travelling out of the way for a reporter to offer his opinion as to the future; but if it is worth nothing it shall cost you nothing. Well, when is the time? I say now. Why? Because Europe wants her supply now; and when she gets that the price will go down, for this reason, the United States have now on hand goods enough for a whole year, and hence the first rise you will see in this country will be on cotton goods, (for cotton is now above the price of goods.) Again, the panic in this country will require time to have its cure; consequently manufacturers cannot go on now losing money as formerly for the reason that they have not got it, and capitalists will not furnish it if they know they cannot get their money back will interest. There is another view to look at.—England needs all the gold she has, hence she will not part with it unless she gets the worth of it. The panic in this country has already had the effect of putting up interest by the Bank of England, and cotton will feel it first. Taking these things altogether, my honest impression is, that the planter will get his best prices between this and the 1st of February, 1858.

## WORK FOR WET WEATHER.

A correspondent of the *Newberry (S. C.) Mirror*, gives us the following hints:

As the ordering of the seasons belongs not to man, it is his privilege and his duty to turn such to the best advantage, and every true farmer will turn wet days to perhaps more profit than the most balmy day of the season.

What should be done on such days, should always be determined beforehand. The farmer is never thrifty who can plan not more than one day ahead. The tools and other implements of the farm will frequently get out of repair. These should always be collected at the shop or work house on wet days, and then and there put in thorough repair. By this, there is not only good tools on the farm, but the time which would be lost on better days is thus saved.

Attention should be given to the gear and harness department. These should always be overhauled on wet days, and a stitch put in here and a link mended there. In this, there is not only a saving of time, but in it there is also policy, for there is nothing that will perhaps so soon spoil the qualities of a horse or mule as defective harness.

But repairs are not the only thing to be attended to, proper material should always be in store and new implements made. The smith shop might also be kept in full blast. Those are a few of the things that may with profit occupy the *wet days* on every farm. That there are others, every skillful farmer will easily perceive, and when one sees what needs be done, let him not put off till another day.

After the rains have passed, there is a part or perhaps several days during which the ground is unfit for tillage. Those must not be lost. On those days much might be done to reduce the price of Guano, if the farmer would consult his interest. Let the horse and cow lot be well supplied with oak leaves or pine straw and let the operation be repeated as frequently as such days recur, and each spring the farmer will have a cheaper and in the end a more durable manure than the famous Guano. After rain, the hill-side and other ditches will require and should have more or less attention. No well regulated farm can be without some of each kind of ditches. The hill-side ditches will do more harm than good if not kept in proper order for carrying off the surplus water.

The gates and fences should not fail to come in for a share on those days. Different seasons of the year may and will suggest other and different employments for the farmer. The great object is always to have your plans well digested and something "laid up for a rainy day."

R—

*Home Place, March, 13.*

## DRILLING VS. BROADCAST SEEDING.

A Saratoga farmer, in the *Country Gentleman*, gives the following testimony on this subject:

In the spring of 1856, the first sowing was a piece of spring wheat. Not knowing anything about the drilling system, I sowed part with the drill and part broadcast in the same field and on the same day. That put in with a drill was more than a quarter better than that sown broadcast, both in straw and grain. I tried my oats in the same manner; they were also better where they were drilled. I have sowed all my grain since with the drill, being satisfied that it is the only proper method of putting grain into the ground. My neighbor, in sowing his buckwheat, had part sown with the drill and part broadcast, and when harvested the drilled was about half better; it was all well filled, while the broadcast was hardly filled, both put in the same field. I think it is better on other accounts than broadcasting. It saves a quarter of seed; besides it cultivates the land and leaves it in a good condition for the crops, better than can be done with the harrow, and I am satisfied it is a paying machine. I have also a thresher and mower, and think they are good machines, but my drill pays me the most of any. It takes less time and seed, and betters the crop, and in dry seasons they are indispensable. Knowing what I do about the drill, I think farmers cannot afford to sow broadcast, if they obtain a drill. I would like to have others give their experience on the same subject.


TO STOP HORSES FROTHING AT THE MOUTH.—I have completely stopped frothing at the mouth by washing my horse's mouth out with the following mixture:—Six drachms of alum dissolved in a quart of sage tea, put it in a wine bottle, as you would refresh a race horse, after a race each time you go out.—*Cor. London Field.*

## TRAINING AGRICULTURISTS.

We have often been asked the question: Why should the agriculturist know more than other people? They certainly should, for in our country they have more to do than other classes; a greater multiplicity of pursuits are here crowded into the planter's calling than in any other occupation. They have to make more use of the powers or laws of nature than others. They are forced to use the elements as tools. They are practical chemists, whether aware of it or not; for they make use of the various substances which nature gives them, which they combine, separate, modify and change, to simples and compounds. The plantation is at one and the same time, a laboratory and a workshop; and in proportion as they operate in such a way as to afford the several elements of which the substances are composed, and upon which they are operating, to disunite or combine, so will be the measure of their success. They depend upon the vegetable world for subsistence—their labor is among and upon the plants of the earth, and they should know the proper name and nature of every tree, herb and plant. They have to contend with insects and animals—they should know the habits and nature of these more intimately than any other class of people—they have to till the earth, and put its soil into a proper condition to produce a good crop. They have to change its natural state to adapt it to the various purposes and crops—then, why should they not know more and better respecting the ingredients of their soils, and the various mineral and fossil substances which they may wish to appropriate to their uses? They have to “discern the face of the sky,” watch the changes of the atmosphere, and regulate their movements in accordance with those changes, temperature, and all the climatic fluctuations. Why, then, should they not know as much, or more, of the composition of the air, or atmosphere, and the science of meteorology, than any other people? They must use all the various tools and implement of labor—they must take advantage of the principles of mechanics, and the application of mathematics to practical life. Is there any good reason why they should not know as much, or even more than others, respecting mechanical science or natural philosophy? In this country they have to contribute largely to the support and formation of the government, and upon them depends the selection of the rulers and law-makers. Why, then, should they not understand the fundamental principles of national law, political science and political economy? They have to administer to the sickness of animals under their charge, heal wounds and restore health. Why, then, should they not perfectly understand comparative anatomy, at least—and, also, physiology, as well as the symptoms and treatment of diseases? Indeed, so wide is the field of the agriculturist, so extensive his labors, so numerous the objects with which he is connected, so various the operations he has to perform; that we verily believe he should be the best educated and best informed man upon the earth. Can a man conquer, or make himself perfectly familiar with every science, and anything? By no means; yet, nevertheless, he should have his mind so well stored with the general principles of all the sciences, that he can be guided by them when it becomes necessary to learn more minutely, and to know when he employs a man devoted particularly to any one branch, whether he is competent to the task, and will discharge his duty to him with fidelity and precision.

A. G. SUMMER.

**TO CURE WARTS ON COWS' TEATS.**—Neat's foot oil, beef gall, spirits turpentine, and old brandy; equal parts of each. Shake well before using. Apply once a day.

 All subscriptions to the *Southern Cultivator* begin with the January number.

## AMERICAN WINES.

THE American grape crop is becoming something of an institution in our country. In the Great West, especially in Ohio and Missouri, thousands of acres are set apart for the cultivation of the vine, and large quantities of wine are now manufactured annually. It has been demonstrated by numerous experiments that our native grapes produce wines fully as good as the best imported from abroad, and so well aware are the people of Ohio and Missouri of this fact, that most of them prefer their own to the best imported brands. No crop, we have been informed, yields a more profitable return for the care and labor expended upon it than the grape.

One acre produces about four hundred gallons of juice, and the wine sells at a high price, the demand for it being greater than the supply. This very circumstance, however, has led to its adulteration in some cases, as liquids have been sold for the pure native juice of the grape which were but mixtures of logwood, caramel, and a little native wine to impart its peculiar aroma to the whole. It is greatly to be regretted that any wine manufacturer should do such a thing; but for all this, there are a number of Ohio brands much prized by those who have quaffed the juice of the grape in Sunny France, on the banks of the Rhine and Douro. The brands of Mr. Yeatman, of Cincinnati, and some others, have a very high reputation in the market.

The soil and the climate of several of our States are very favorable for the cultivation of the grape, and we think that not many years hence the importation of foreign wines will cease entirely.

In Missouri, a whole county is chiefly devoted to the raising of grapes, with the sole view of manufacturing them into wine; while a company has been formed there with a large capital, to manufacture, bottle, store and sell it. The wine made in Missouri is quite equal to the best in Ohio. The vineyards around Cincinnati are extending every year; one horticulturist alone, as we learn from a cotemporary, sold one million of cuttings the present year.

Whenever a plentiful supply of good pure native wine is obtained, it will supersede distilled and malted liquors—beverages which are now too commonly used.—*Scientific American*.

## MACHINE FOR SPINNING SPANISH OR LONG MOSS.

EDITORS SOUTHERN CULTIVATOR—My son being a subscriber to your paper, and living on the same place with me, I have read it regularly since he has taken it. Supposing you to be more extensively acquainted with the latest improvement in domestic economy of every kind than any other to whom I could address a letter of inquiry, I take the liberty of troubling you with this to inquire if you know of any machine that will spin the Long Moss used in making mattresses into a very loose twisted rope; the single strand of which may be varied from 1-2 to 2 1-2 inches in diameter. The reason of my making this inquiry is, that I have made an improvement in the making of mattresses, by weaving such ropes as above described as filling upon a strong twine warp, (See *Scientific American*, July 25th, 1857,) and I find the spinning by hand to be a slow process, as it takes two spinners to keep the loom going when making a square yard of the fabric in ten minutes. What I wish is, a machine that will spin as fast as two hands, with one horse power, and one hand to attend it. I have been making these mattresses about two years; they can be plated with wool with great facility, and are superceding every other kind of bed where they are known.

If there is no such machine in existence, I will give a bonus of \$100, and the exclusive right to make and sell



matresses in the State in which any man lives who will invent one that will perform the work well, provided he does not live in Mississippi, Louisiana, or Texas. In that case, he can choose another State.

With due respect, &c., W. P. FORD.  
*Cheneyville, Parish of Rapides, La., Oct., 1857.*

#### WHITE LUPIN---MECHANICS AND AGRICULTURE, &c.

EDITORS SOUTHERN CULTIVATOR—For some time I have been thinking of experimenting with the White Lupin as a renovator upon our flat lands, but cannot get the seed. Be kind enough to inform me where I can get the seed and also its price. The White Lupin and Spurry are quite popular on the continent of Europe as reclaimers of land. I do believe that the Lupin, in particular, would be of great advantage to us, as our soils are more or less ferruginous. This plant delights in penetrating a close, compact subsoil with its long roots, and forcing from it the inorganic elements that our crops need so much.

It seems to me that the mechanical department is too much neglected by our agricultural periodicals. I have read a great deal about the making of cotton in the different journals, but have not seen the first line upon ginning of cotton.

What proportion ought there to be between the band-wheel and cog-wheel to attain the greatest amount of speed? What ought to be the length and width of the band to correspond with the whirl upon the gin and band wheel? And then the materials of the cogs, their thickness and distance apart are all matters of great importance to the speed of a gin.

There is, too, the screw equally indispensable to the farmer as the running gear, and not a word have I seen about its construction. What species of wood is the most durable for the pin and taps? and what ought to be the width of the threads on the pin so as to cause the screw to descend with the greatest haste and at the least expense of horse power?

While your Philips, your Harmon and other Agricultural High Priests are giving forth their experienced utterances, upon the culture of cotton, let us also have a few plain articles upon the principles involved in the structure of screws and running gear; for I know of no labor of the farm that is heavier upon the horse than the ginning of our cotton.

F. A. W.

*Mt. Carmel, Abbeville Dist., S. C., Oct., 1857.*

[Any person having seed of the White Lupin will confer a favor by making the fact known through our columns; which are also open to all who wish to communicate information of general interest on Agricultural implements, machinery, &c.—Eds.]

#### THE PROPER PREPARATION OF COTTON for Market.

THE greatest economy in the gathering and preparing any crop which is produced, is essential to insure the proper profits to the planter. He may have fine lands, propitious seasons, and all the incidents to successful production, but if the most careful attention is not bestowed upon the gathering of his staples, he is no better off in the end than he who tills poor lands, and carefully husbunds and protects its products. From the moment a crop is matured it demands, therefore, strict attention, and no labor is better paid than its preservation and protection from depredation. If all the cotton which is produced was saved and properly brought to market, it would swell the production to a degree unthought of by those who do not look strictly into details. If this, which is not regarded by the larger producers of cotton as essential, is

a fact, how much is lost to the planters by the careless and bungling manner in which the staple crops are prepared for market? We do not hazard a great deal in saying, that from this alone planters suffer more than from even short prices, and all other depressing causes combined. Nor do we assert anything but truth when we say, that these lessons to the planters of South Carolina would pay their taxes more than four times over.

The careful picking and ginning of cotton is most essential. Nothing pays better than attention to these two operations. A good cotton gin should be secured, and attention paid to the manner in which the ginning is performed. The condition of the cotton should be perfect. If it has been properly sunned before put in bulk, and securely housed against the effects of damp, it will be in such order that the lint will be thrown from the brush wheel in a feathery, fleecy state. If the gin is in proper condition the staple will not knap, nor will the fibre be cut by the saws. Knapped cottons, and that which is cut by the saws, always sell for less than even dirty cottons, which are well ginned, from the fact that the manufacturers have the proper machines for cleaning it of the dirt and leaf left in it; but when the fibre is once destroyed, its value is in the like manner impaired. This exemption from injury can only be properly secured by having both the cotton and gin in perfect order. An overseer should not only be a capable judge of these things, but he should be able to remedy any defects which may occur in the working of the machinery of the motive power which drives the gin, as well as the gin itself. The Georgia and Alabama cottons are preferred in our shipping markets, not on account of the superiority of their staple, but merely because they are well ginned. In packing cotton, six ropes should be used to each bale; for if one should break here are always a sufficient number left to secure the bale from bursting. The rope, too, is seldom an expense to the planter, as it usually brings as much as it costs, and hence he can afford to apply it without stint. If six ropes are used, the sowing of the bales on the side with twine can be dispensed with; for with close packing the bagging will meet, and even if it does not, there can be no wastage at the sides. From the mode in which cottons are packed in the screw boxes in layers, the wastage only occurs in the top, bottom and ends. The heads of the bales should be securely and properly sewed up with twine in the best manner. After the bale is turned out, avoid the common custom of exposing it to the weather. If it is worth gathering, picking and packing for market, it certainly is worth protecting from the weather. If these particulars are strictly attended to, the cotton crop would bring the producer from one to two cents per pound more than it does when prepared in a careless and indifferent manner.—*South Carolina Agriculturist.*

#### CORN STALK CUTTER.

EDITORS SOUTHERN CULTIVATOR—Believing it to be the duty of every farmer of our country to contribute his mite for the benefit of his fellow man and to impart all information that would be of service to the cause of agriculture, I therefore send you a description of a Roller and Cutter that I constructed last fall for the purpose of preparing land that was foul for the plow. This Cutter, for corn stalks or weeds of any kind, acts like a charm. I have never tried it on cotton stalks, but believe it will act if your land has not too many stumps or loose rock. The Stalk Cutter is 8 feet in length—that is the Roller. I selected a straight black walnut 18 inches in diameter; knocked off bumps and bark with a foot adze; banded each end with iron, as you would wagon hubs, to keep them from sun cracking; I then placed a gudgeon of 1 1-2 inch iron round; squared 6 inches with beards cut on it where it goes into the end of the Roller, leaving 4 inches out of



Roller of the round iron Next, I make a frame of 4 inch scantling for the Roller to revolve in, to be securely framed with mortice and tenons well pinned on Roller. I next put a tongue in, either for oxen or horses. Let your frame rest on the gudgeons; confine your gudgeons by staples to their proper places.

Your Roller being complete, you will procure common steel, such as we lay plows with in this country, say 2 1-2 inches in breadth by 1-8 in thickness; have one edge hammered out sharp and then tempered, ground sharp on a stone or filed. This knife should be 7 feet in length. You must, for an 18 inch roller, have 8 knives of this kind. You place them at equal distances apart, lengthwise your roller. You next confine your knife on roller, and in order to do that I take iron 1 by 1-2 inch, cut off 6 inches in length; double it and you have 1 inch square; one end open to receive the knife; let this straddle the back of your knife, say 1 1-2 inches, securely riveted with one good rivet; that will give you 4 1-2 shank to go into roller; place 1 at each end and on the middle; commence with knife No. 1; mark where your shanks come with 1 inch augur; bore for shanks, and so on, with No. 2; and if you should cut a rabbit in roller for the back of the knife to rest in, all the better.

Such is a rough sketch of my Corn Stalk Cutter, and it works finely in our prairie land; so much so that all of our farmers are having them made, and at the same time have solicited me to apply for a patent: but believing I was too far Southwest, and fearful of coming in contact with some worthy invention from the land of "Wooden Nutmegs" if I should go as far as Washington, therefore, I have declined applying for a patent, and authorize you if you see proper and can understand what I have attempted to describe to you, you can place it in ship-shape and give it to your numerous readers.

Your obedient and humble servant,

J. H. SINGLETON.

Waxahachie, Ellis Co., Sept., 1857.

#### BERMUDA GRASS—AGRICULTURE.

EDITORS SOUTHERN CULTIVATOR—It is stated in a former number of your gladdening journal that Bermuda Grass "is not very difficult to control or destroy, when properly managed."

It is not my wish or intention to discredit a statement from authority which is oracular among planters and men of scientific attainment and research in the great cause of agriculture, but I am disposed to doubt any one's ability to eradicate Bermuda Grass, by no matter what sort of management, without very great trouble, labor and immense difficulty. It has been the curse of the richest planting lands in this county, and is dreaded as much as the famed grass which an Irishman declared took root so deeply that it clung on "tother side the world."

It is truly a disadvantage to any cotton country, though one of the best grasses we have for hogs and sheep. Cows get poor upon it, and horses have to work hard to gratify their appetites; besides in tilling soil on which it has become matted this valuable animal has to labor very hard and soon becomes poor and lean of look.

It was said that salt, chloride of sodium, would kill Bermuda; as it almost any other grass, but such is not the case.

A friend of mine emptied the brine out of a number of pickle pork barrels upon a small square of grass, and in a few days was disposed to think he had found the long-sought secret, but to his astonishment, the grass came out again very luxuriantly and grew off rapidly. A gentleman claims to have killed the grass by plowing it up thoroughly in mid-winter, and this seems the most rational theory that has ever been started; for the roots cannot stand a freeze when they are exposed.

I've been watching the experiment of a very intelligent planter near me who, I am disposed to think, will succeed in thoroughly destroying the grass, but only after a large expenditure of labor, time and trouble. If his experiment succeeds it will be clearly demonstrated that the Bermuda Grass can be killed, but not easily or without difficulty.

A planter, if he has the land to spare, should, by all means, have a pasture, and there is no grass which succeeds better for pasturage, because tough and hardy, than Bermuda; though at the same time he should avoid most scrupulously, getting the grass on any land which is reserved for planting purposes.

Another thing about this grass, is its possessing seed. The most of persons deny that it has seed, but my attention was called to this fact by a gentleman whose practical experience, gained in a prolonged battle with the grass would be prized, if given to the planting community, more particularly that part which are now cultivating soil platted and matted by its endless number of roots. The seed germinate like that of other grasses in the spring, though this grass, when from the seed, is easily killed until it has jointed, being, at first, young and tender.

Dr. P., of Edwards, Miss., perhaps could give something valuable on the destruction of the Bermuda Grass, and any information, of a practicable plan which would thoroughly eradicate this much hated and truly hateful grass, would be appreciated and prized by all who have to work lands upon which it is growing. Horses carry sprigs of it in their shoes all day and wherever the joints which have eyes somewhat similar to the old sugar cane, fall, they most surely live and spread over the soil.

It is also conveyed on waggon wheels for miles and planted out to the annoyance of men who dread it worse than poor lands and gullied hills, since Mr. Harmon's occupation bids fair to become almost a science. Success to him and Bermuda grass destroyers. Men making the destruction and thorough eradication of this abomination an employment, would find handsome remuneration.

It is notorious that we, as a people, in Alabama, do not pay sufficient attention to forage for stock—that we feed and rely too much upon corn and fodder, but heaven deliver us from Bermuda Grass.

It would gratify much those sufferers who are working in Bermuda patches to see the subject of its eradication discussed in your excellent monthly.\* Perhaps after becoming familiar with the subject, it may not be so dreadful as we suppose and, perhaps, with the pen alone some intelligent planter (and there are scores of such) might be the remote cause of much good and a great deal of satisfaction to those who are unfortunate, or consider themselves so, in possessing lands "run away" with Bermuda Grass.

The cultivation of mother earth is rapidly becoming a science; and what is there more independent, more depended upon, more beautiful, more occupying and informing than bringing forth the smiles, in luxuriant harvests, of our kind relenting parent? Men may disappoint us, and they certainly will, women may deceive us, but mother earth is ever fond to her children. If we are abundant in our affection to the good dame, she is not forgetful in her returns and gives to her working sons the influence of the world and the wealth and strength of nations.

In order to advance Agriculture, we should support our agricultural periodicals, and it is to be devoutly hoped that the men of this great country will sustain these noble efforts in the noblest of causes. INTERLOPER.

Lowndes Co., Ala., Oct., 1857.

\*We will give an article on the destruction of Bermuda and other troublesome grasses, in our January number.—Eds.

## DeBOW'S REVIEW ON THE COTTON CROP.

In a long article, DeBow has reviewed the last 32 years, making the following deduction:

Average latest spring frost, March 23.  
Average earliest fall frost, October 26.  
Average time between latest and earliest frost, 7 months and 4 days.

Average date of first bloom, June 5.

And for 1857 as follows:

Latest spring frost, April 23. Earliest fall frost, average October 20. Growing season 6 months and 3 days. First bloom, June 25.

He says: Before I proceed to show what I would consider a small average or large crop for 1857, I will call attention to some facts. As a general rule, the magnitude of the crop depends upon a long or short period between the spring and fall frosts. In 1839, the spring opened on the 6th of March, seventeen days earlier than the average and the growing season continued twelve days later than the average fall frost, giving for the growing season eight months 1 day, and a crop of 2,177,000 bales—an increase 800,000 bales over the year immediately preceding. The crop of 1840, besides the influence of a short season of six months and twenty-four days, was diminished by an overflow to the Mississippi, and reached only 1,635,000 bales. The crop of 1842 was very large, and it will be observed that the season commenced on the 22d February and continued until the 26th of October, a period of eight months and four days, yielding 2,378,000 bales—an increase of more than 700,000 bales over the previous year. The crop of 1848 was an unusually short one of 1,779,000 bales, resulting from a short growing season of six months and five days, and a general visitation of the army worm. The crop of 1848 is again a short one of 2,097,000, showing a deficit of more than 600,000 bales from the previous crop; the growing season was only 6 months 22 days, and there was an overflow in Red River during the summer.

The crop of 1855 was an unusually large one on a growing season of a few days short of 7 months, but it will be observed that the whole season was remarkably favorable, and that at least 260,000 bales of the previous crop was received, which had been kept back by low water in the rivers in Alabama, Louisiana, Arkansas and Texas. The crop of 1856 has been variously estimated, but taking the present deficit at all the ports, and the probable amount to come forward, it will probably not exceed 2,950,000 bales—and I believe this figure has been generally adopted—I shall take it as a basis of calculation.

Taking the average of the last five crops as the basis of our calculation, without regard to the late spring frost of the present season, the result will be as follows:

1852 crop in bales .....	3,262,900
1853 crop in bales .....	2,930,090
1854 crop in bales .....	2,847,300
1855 crop in bales .....	3,587,800
1856 crop in bales .. estimated ..	2,950,000

Average of above .....

Add 5 per ct. incr'se in cultivation. 156,200

3,179,800

But if the fall frost should take place at the average date, 26th October, the growing season will only be six months and three days, one month short of the average, and we can only expect a proportionally short crop.

1857 average crop in bales. .... 3,279,800

Deduct 14 per ct. for 1 month short

of average growing season .....

Leaving for the actual only .....

From the above, I conclude that even if the fall frost should be protracted to the 19th of November, the latest period for the last thirty-two years, the growing crop cannot exceed 3,275,000 bales, which would be much short of the commercial wants of the world, and if the fall frost comes at the average period of the 26th of October, or as often occurs before that time, the crop will not exceed 2,830,000.

GEORGIA WINE.—We accepted the invitation, a day or two since, of our esteemed friend, John L. Wynne, of Wilkes county, to test some of his *Still Catawba Wine*, the pure juice of the grape, of the vintage of 1856, and we take pleasure in saying, much as we had heard of the excellence of his wine, it far exceeded our most sanguine expectation. It was indeed a most excellent, in fact a very superior article; and in this opinion we were sustained by gentlemen, in the acuteness and accuracy of whose tastes, we have more confidence than our own. We had an opportunity of comparing it with a bottle of "Longworth's Still Catawba," of the vintage of 1852, with which it was pronounced fully equal if not superior.

Those who desire to taste a good article (the pure juice of the grape,) of Georgia made Wine, can do so by calling at the store of Lamback & Cooper.—*Augusta, Chron., Oct. 16.*

FRACTIONS OF AN ACRE FOR EXPERIMENT.—It is often very desirable to the farmer to measure off from a lot of land fractions of one acre, for the purpose of making a series of experiments upon different modes of planting, cultivating or manuring. To facilitate this we give below the measurement of a side of a square, containing the following fractional parts of an acre. A reference to this table will save some perhaps tedious calculation:

	Feet square.
1-16 of an acre contains about .....	52 1-8
1-8 " " .....	73 1-8
1-4 " " .....	104 1-4
1-3 " " .....	121 1-2
1-2 " " .....	147 1-2
1 acre " " .....	200
2 acres " " .....	418

We cannot but suggest to our readers the importance and advantage of combining with the usual duties of the farm such experiments as may easily be conducted without any interruption of the work, and yet will often lead to the most decisive results. If one is to plant an acre of potatoes, for instance, divide it into quarters, and each quarter into eighths, if needed, and plant one part with small seed, another with large, another with cut and another whole; manure one part in the hill, another outside. On one quarter try salt to prevent the rot, on another lime, another ashes, &c. No man can do this without soon increasing his knowledge of agriculture, and soon after his wealth.—*Granite State Farmer.*

HAPPY FARMERS.—When the commercial horizon is shrouded in gloom; when suspension and ruin are impending over those who but recently awakened feelings of envy and discontent in the breast of the farmer, by their show of wealth—their gilded equipages, and troops of servants—their enjoyments of all the luxuries of life—then can the honest tiller of mother earth raise his head with pride which unscathed integrity alone can give, and thank his stars that he is not a "merchant prince." Times like these are well calculated to demonstrate the vanity of "getting rich in a hurry." While the gilded fortunes in anticipation by speculators, have vanished as the mist before the morning sun, the steady but slow gains of the farmer are secure. There is now plenty in all the rural districts, while depression and want are staring the commercial and manufacturing world in the face.—*Exchange.*

## "MAD ITCH."

EDITORS SOUTHERN CULTIVATOR—If you or any of your subscribers can inform me how to cure and what to use as a preventive for a disease I have among my cattle, it will be thankfully received. When I discovered the first symptoms of the disease, the cattle taken, were rubbing their heads very severely; so much so, that it was not long before the hair was rubbed off. They appeared to be in the greatest agony, and the disease appeared to be principally confined to the head. Some term it "Mad Itch," perhaps it may be. Please let me know if there is any known remedy for it, as all that I did had no effect. I used tar, sulphur and salt as a preventive with those that had not taken it; there has not been another case of the disease since I used the above remedy, though I do not know that it is a preventive. Respectfully,

A SUBSCRIBER.

Lamar, Miss., Oct., 1857.

## SNUFF "DIPPING."

Senator BULLOCK, of Ala., editor of the *Spirit of the South*, thus sets his condemnation on the filthy habit of "dipping."

"This most disgusting and ruinous practice has become alarmingly prevalent. The quantity sold in this county, [Barbour, Ala.] exceeds five thousand pounds, and no doubt the consumption is equally great in other counties. The snuff bottle passes round not less frequently than the whiskey bottle among toppers—and the one form of dissipation is about as offensive and ruinous as the other—in fact whiskey has the advantage. What can be more revolting to good taste than to see a lady comforting herself with a huge mop, ponderous with maccaboy—grinding the villainous mass, mop and all, until it become tasteless and juiceless.

"Young ladies and old, married and single indulge, and what is passing strange, but few conceal it. There is a painful amount of ignorance as to the deadly ravages it makes upon the health. It finds a beginning in occasional dipping to cleanse the teeth, and such supposed harmless use begets a fondness for it as a stimulant, and nothing can be more certain than that in the end, you become possessed of an irresistible craving for it, which must be gratified at all hazards—nervous system wrecked—digestion and appetite destroyed—gums and lips hardened, bloodless and juiceless—skin rough and colorless—the snuff dipper stands before you a skeleton, eating nothing, enjoying nothing, all the time crying for more snuff. Ladies, let us beseech you to avoid it as you would the most deadly poison. Never use it for any purpose. Substitute charcoal in cleaning the teeth—it is far preferable, not only as a cleanser, but it keeps the breath pure, and should any escape into the stomach it acts admirably as a disinfecting agent and benefits digestion. But banish snuff at all events, and you will never regret the resolution."

A CALCULATION TO LOOK AT.—Suppose a man drinks four glasses of liquor a day, at five cents a glass, in a week he spends \$1 40, and in a year \$72 80. This will buy the following articles:—Four barrels of flour, say \$24; four pairs of boots, say \$15; forty pounds of butter, \$10; two hundred pounds of beef, \$8; a new hat, \$4; a new satin vest, \$4; a bonnet for wife, \$5; sugar plums for the children, \$1 80. Total \$72 80.—*Exchange*.

We have a number of gentlemen in our town who will average ten glasses per day; and for which they pay ten cents per glass. That would be \$1 per day, \$7 per week, or \$365 per year; and would buy him a neat little cottage for himself and family, and a suit of clothes to boot.—*Brandon Republican*

## CURE FOR SWOLLEN FEET IN CHICKENS.

EDITORS SOUTHERN CULTIVATOR—I notice in the May number of the *Southern Cultivator* some inquiries made by Mrs. M. K. J., as to the cause and cure for Swollen Feet Chickens. I do not know the cause, but will give the cure. Have their feet and legs well tarred up to their knee joints, and repeat it in some four or five days afterwards. You will find that all the rough scaly substance about their feet and legs will peel off, all the swelling be reduced and leave them a beautiful white. Apply the tar alone—mix nothing with it. L. E. L.

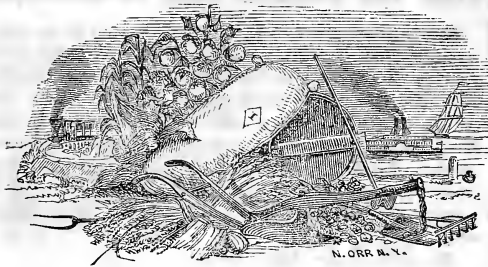
Marshall, Texas, Aug., 1857.

NATIVE COTTON.—The following is an extract from a letter published in the Tallahassee *Floridian and Journal*, and dated the 14th of Sept., at Fort Myers, Fla.:

While on a scout near this place, on the Collooshatchee river, a few days, since, I found a large quantity of wild cotton. This cotton is growing in a low marshy hammock, near the river; when first discovered I could hardly believe the fact, but upon examination I found it to be cotton in its crude and uncultivated state. This cotton has the appearance of Nankeen cotton, but I think this is caused by the red bug, which seems to have the same effect on the bolls as rust on the stem. The leaf of this cotton is very much like the Sea Island in shape, but from the feeling of the leaf and shape of the bolls one would suppose it to be upland. This cotton grows very high, and seems to be mostly barren, but this I think, is owing to the thickness of the growth. This cotton is so well adapted to the climate and soil that it grows all the winter; it may seem unreasonable to you, sir, but I am confident that I saw some stalks that are at least four or five years old. It is found mostly in the vicinity of the river. I went with Col. Rogers and others, who are well acquainted with the cotton plant, to look at this cotton, and they all pronounce it cotton growing naturally in an uncultivated soil."

A GOOD WORD FOR THE LADIES.—Some of the papers are lecturing women upon extravagance in dress, and advising them to retrench, especially during the present financial difficulty. Doubtless there are many cases of unwarrantable extravagance in this way; but do people ever consider that two or three glasses of brandy and half a dozen regalias indulged in daily by a man, to say nothing of 5 and \$10 dinners, amount to more in a year than would be required to dress a woman up to the full requirements of fashion? Much of this talk about the extravagance of women is nonsense. They are almost universally careful, and many a trader would to-day have been safe and sound, if he had listened to the prudent counsels of his wife, rather than the reckless promptings of his own ambition. It is natural for men to endeavor to shift the responsibility of their folly to other shoulders, but it is rather too much to charge a commercial revulsion like this upon one's wife and daughter.—*Tribune*.

LOOK OUT FOR MANURE.—No manure is so well worth the saving in October and November, as the new fallen leaves of the season. According to Payen, they contain nearly three times as much nitrogen as ordinary barnyard manure; and every gardener who has strewn and covered them in his trenches late in the fall or in December, must have noticed the next season how black and moist the soil is that adheres to the thrifty young beets that he pulls. No vegetable substance yields its woody fibre and becomes soluble quicker than leaves, and from this very cause they are soon dried up, scattered to the winds and wasted if not now gathered and trenched in or composted before the advent of severe winter.—*Exch.*



## The Southern Cultivator.

AUGUSTA, GA:

VOL. XV., NO. 12.....DECEMBER, 1857.

### SUSPENDED BANKS AT PAR

THE Proprietor of the *Southern Cultivator* will take the bills of the following suspended Banks AT PAR, for any indebtedness to this office, or for subscriptions to the *Southern Cultivator* and *Chronicle & Sentinel*:

GEORGIA RAILROAD BANK.  
UNION BANK, Augusta.  
BANK OF THE STATE OF SOUTH CAROLINA.  
BANK OF SOUTH CAROLINA.  
SOUTHWESTERN RAILROAD BANK.  
PEOPLES BANK, Charleston.  
BANK OF HAMBURG.

### ANSWERS TO CORRESPONDENTS.

SAGO PALM AND PALMETTO.—W.—Neither of those beautiful plants are cultivated to any extent in the Nurseries, nor will they stand the winter as high as latitude 35°. Fine hedges of the "Spanish Bayonet" (*Yucca gloriosa*) are, we believe, common in Florida, and the plant is easily propagated by pieces of the stem, or from the seed. A hedge of mingled "Spanish Bayonet" and Cherokee or White Macartney Rose would certainly prove a "terror to evil doers," and effectually protect your fruit garden.

OYSTER SHELL LIME.—H. P.—The shells of these luscious "bivalves" decompose very slowly—too much so to be available for agricultural purposes, unless burned into lime, which may be done by heaping them over a brisk fire of wood—the ashes of which, with the shell lime, may be advantageously applied to your land.

MAGNOLIA SEED.—T. W. M.—This seed should be gathered as soon as ripe (in September or October) and planted at once in pots. Nothing could make a grander avenue than two parallel rows of this "pride of the Southern woods"—the *Magnolia grandiflora*! It is a great mistake to suppose it will "not grow well on dry upland." The very finest Magnolia tree we ever saw, stands in dry, elevated soil, in the yard of Mr. WRIGHT, of Beech Island, S. C. The small Magnolia, or "Bay" (*M. glauca*) of our swamps, though not equal in grandeur and majesty to its lovelier namesake, is, if possible, more beautiful, and deserves a prominent place in every tasteful collection of ornamental shrubbery. Owing to the difficulty of transplanting from low alluvial soils, it should, in all cases, be raised from seed. Will not some competent person give

us an article on the *Neglected Native Shrubs and Trees of the South*?

GOLD FISH.—*Piscator*.—These may be obtained in New York at from \$1 50 per dozen upward, according to size. They will live and thrive, in this climate, in any pure and clear pond or "spring branch"—but, from their striking appearance, are quite liable to be preyed upon by larger fish, water snakes, &c. Ours were swept away by a freshet, and we have not yet replaced them. The Bream can be obtained, in this city, we presume, from Col. JOHN HILL, whose pond, at the foot of the Sand Hills, is abundantly stocked with them.

AGRICULTURAL FAIRS.—L. M. C.—You are too late. All the Fairs are over for this season, and we think your invention has already been worked out by a Western mechanic. See Patent Office Report.

FRUIT TREES.—A. F. R.—See the various advertisements, and give the preference to the best and most reliable Nursery near you. Now is the time to plant. Remember! that for you, one good Southern raised tree is worth two from a different climate. Northern winter Apples are of no value here—you should procure such fine Southern kinds as the Carter, Shockley, Nickajack, Equinety, Cullasaga, &c., &c., The Peach you allude to is, the Chinese Cling, disseminated by HENRY LYONS, Esq., of Columbia, S. C. The Honey Peach is also one of Mr. LYONS' Peaches, from China, and will not be sent out until next year. We can give you no other information respecting the "Flat Peach of China" than is furnished by the last edition of DOWNING's "Fruits and Fruit Trees," which see.

WHITE STRAWBERRY.—G. D. L.—We do not know of a really good white Strawberry for the South. We have tried the common *White Wood*, the *Bicton Pine*, &c., but our success has not been very flattering. The kinds which succeed best, with the proper mode of planting, &c., will be found in our November number, page 330. We have heard of a fine white seedling Strawberry in South Carolina, which we will endeavor to obtain this winter for trial.

OGEECHEE LIMES.—S. A. H.—The "Ogeechee Lime" (so called) is the Sour Tupelo (*Nyssa capitata*) of naturalists. It is found on the Ogeechee River, and southward as far as Louisiana. It is delicious, *i. e.*, the male and female flowers are borne on separate trees. The fruit is of a light red color; oval shaped; somewhat more than an inch long, and five-eighths of an inch in diameter, near the stem. It is thick skinned and very acid, and is used to make preserves, which are highly esteemed. MICHAUX says: "An agreeable acidulous beverage might be made from it." We are not aware that any effort has been made to cultivate this tree, and shall be obliged to any of our correspondents who will send us some of the fresh fruit (which is now, November 15th,) fully ripe, or some of the seed from fruit of this year.

SOUTHERN APPLES.—P.—You are quite mistaken respecting the comparative merits of Northern and Southern Apples. We have now at least 20 *Native Southern Apples* (fall and winter) that are far superior (especially for our climate) to any Northern or foreign kinds. By procuring the proper varieties and cultivating them right, you can have an abundance of this wholesome and delicious fruit from June until the following April and May. That is, the earlier kinds (Red June, Julian, &c.) ripen in June; and the winter varieties (such as Shockley, Cullasaga, Nickajack, Equinety, Carter, &c.) will ripen in the house, in succession from October until May. See the Descriptive Catalogues of Southern Nurserymen—see, also, the new edition of DOWNING's "Fruit and Fruit Trees;" and the back volumes and numbers of this journal. We have figured and described many of the best

native Southern Apples, introduced by Mr. VAN BUREN, Dr. BALDWIN, ROBT. NELSON, Rev. J. L. MOULTRIE, and others, and shall devote increased attention to the subject. The Apple, with us, seldom, if ever, fails of producing a crop.

ROBERT NELSON, A. M.—H. L. M.—This gentleman is at Yazoo City, Miss., and all letters intended for him personally, should be addressed to that place.

#### ENLARGING THE CULTIVATOR.

EDITORS SOUTHERN CULTIVATOR—In your October number, page 300, Mr. G. D. HARMON proposes to be "one of 5000 of your subscribers, who will send you one new subscriber, at least, and as many more as we can." You annex remarks to his proposal, "that if it is responded to in the right spirit, prior to the first of December, you will, the next year, give your readers a journal as large and handsome as it is admitted to be useful and practical."

As a subscriber, I respond to the proposition, and enclose you one dollar, paid me by A. H. W., for the back numbers of the present volume, and this subscriber wishes to be continued for the next year. This is equivalent to two subscribers. I expect by the 1st of December to send you two or three more gold dollars for new subscribers, and another dollar for this subscriber for the next year. B\*\*\*.

Washington, Texas, Oct., 1857.

[We have received the gold dollar enclosed, and will forward numbers for present volume to A. H. W., as directed. If *all* or even *half* of our subscribers were as generous and as devoted to "the cause" as B\*\*\*, and Mr. HARMON, it would be an easy matter for us to enlarge our journal; but the responses to Mr. HARMON's proposition are so few, and the "times" so stringent, that we must be content to retain our accustomed form and size for the present. We trust, however, that this circumstance will not prevent our friends from making all due effort to extend our circulation, which has never yet (be it modestly spoken!) reached the half of what its merits, and the agricultural interests of the country entitle it to.—Eds.]

#### NEW ADVERTISEMENTS.

A Card to Southern Fruit Growers.  
Fruit and Ornamental Trees, Plants, &c.  
Dutch Bulbous Roots.  
Co-Partnership Notice.  
Pomona Hall Nursery.  
The Double-Acting Circle-Adjusting Plow.  
Augusta Nursery.  
Southern Machine Depot.  
Downing Hill Nursery.  
Grass Seed.  
Imported Garden Seed.  
Peabody's Prolific Corn, &c.

CLOSE OF THE VOLUME.—The present number closes our Fifteenth Volume. We pledge ourselves to the continuation of our best efforts for the advancement of agriculture and horticulture in the South, and confidently rely upon the generous and appreciative support of the public. All subscriptions should be renewed at once, and as many new names added to our lists as possible.

THE INDEX to present Volume, accompanies this number and will be found very complete. It may be detached from the centre of the sheet, and put in its proper place, at the beginning of the volume.

#### OUR BOOK TABLE.

A TREATISE ON SURVEYING; in which the Theory and Practice are fully explained. Preceded by a short Treatise on Logarithms: and also by a Compendious System of Plane Trigonometry. The whole illustrated by numerous examples. By SAMUEL ALSOP, author of a "Treatise on Algebra," etc. Philadelphia: E. C. & J. BIDDLE, No. 508 Union street. 1857.

This is one of the most elaborate and perfect works on Surveying that has yet fallen under our notice, and cannot but be of very great service, not only to those who practice that art as a profession, but also to the farmer, planter, land-owner and student. The contents of Chapter Four will especially interest agriculturists, as that chapter explains the easiest and simplest method of ascertaining the contents of particular fields or portions of enclosures. The work is a large and well printed octavo of over 400 pages, and it can be obtained per mail, free of postage, at \$1 75, by addressing E. C. & J. BIDDLE, Philadelphia, Pa.

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS, for 1858. With 130 engravings Number Four. Albany, N. Y. LUTHER TUCKER & SON, publishers. JOHN J. THOMAS, Editor.

This is a very neat duodecimo volume of nearly 150 pages, containing practical hints and suggestions on Country Dwellings, Laying out Grounds, What Fruits to Choose, Domestic Animals, Fruit Culture, Farm Buildings and Implements, School Houses, Butter and Cheese Making, Rustic Seats and Structures, Rural and Domestic Economy, Weights and Measures, &c., &c. It is richly worth five times the price asked for it, and may be obtained, free of postage, by enclosing 27 cents in stamps to LUTHER TUCKER & SON, Albany, New York.

THE AMERICAN WATER CURE, AND THE PHRENOLOGICAL ALMANACS, besides much special information on the subjects to which they are devoted, contain no inconsiderable amount of entertaining miscellaneous reading, with the usual Calendars, &c., for 1858. Price 6 cents each, or 25 copies for \$1. Address: FOWLER & WELLS, 308 Broadway, New York City.

AN ESSAY ON THE PRESERVATION OF HEALTH. By GOODWYN NIXON, M. D., of Lowndes, Ala. 1857.

This is a somewhat "quaint and curious" pamphlet, which, as the author frankly avows, was "written to while away time." The style is lively, piquant and conversational; and while we do not consider ourselves competent to pronounce upon the correctness of all the author's conclusions, there is one from which we have no desire to dissent, viz: that "Good ripe fruit is a means of obviating disease. It *cools the blood*, and robs it of the germs of fever and inflammation; it opens the bowels, and lulls the excitement of the system. After a winter of meat and bread, how anxiously we hail the advent of summer, with its luscious fruits! and what delight it gives our organs of taste, so long inured to the stale dishes of winter! 'Tis not unlike passing through some parching Sahara, and coming to an oasis, where our cars are ravished with the euphony of gushing waters."

We are under obligations to the author for a copy of the work, for which he has our thanks.



## THE ATLANTA FAIR.

Owing to the "pressure of the times" and several other causes, the attendance of the people at the late Fair in Atlanta, was quite meagre. A well informed officer of the Society writes us:

"The late Fair was the best, in Horses, Mules, Field Crops, Machinery and Manufactures, and Fine Arts, that we have ever had. The Ladies' Hall and Household department and Fruits were very poor and the people were absent."

The following officers were elected for the ensuing year:

L. B. MERCER, of Terrill, *President*.

JAMES CAMAK, of Clarke, *Secretary*.

Lewis Tumlin, of Cass,

J. H. Hayden, of Fulton,

T. P. Jones, of Green,

J. S. Linton, of Clarke,

Richard, Peters, of Fulton,

Jno. H. Newton, of Clarke,

Geo. P. Harrison, of Chatham,

C. J. Munnerlyn, of Decatur,

T. J. Smith, of Hancock,

Wm. M. Brown, of Marion.

*Executive Committee.*

DOWNING'S "FRUITS."—We are in receipt of a copy of this indispensable work, just as we go to press. We thank the generous donor, (CHARLES DOWNING, Esq.) and will give the work a more extended notice hereafter.

GRAPE REPORT.—The continuation of the Report on Grapes, by the Committee *ad interim* of the Georgia Pomological Society, will appear in our January number.

WANT OF TASTE.—In a recent number of *Hovey's Magazine*, the remark is made, that "few complete and thoroughly made gardens and grounds are to be found. We see everywhere in the rapid increase of wealth and population in our suburban towns, fine buildings, erected almost by magic, in the highest style of architectural art, and finished without regard to expense. These costly dwellings, as well as those of more humble pretensions, meet our eyes in every direction, and would command our highest admiration, but for one defect. They are wanting in the elegant surrounding which should belong to every suburban residence; the lawn, the ornamental grounds, the fruit garden, or even the little parterre, have been entirely neglected, and they stand bleak and alone, an ostentatious display of wealth without taste, on the one hand, or the appearance of a depleted purse without the means of doing anything more, on the other."

HIGH PRICE FOR NEGROES.—The Memphis *Bulletin* of the 4th inst., records the following:—"At a sale of the property of William Holman, deceased, of Overton county, on the 21st ultimo, twelve negroes were sold for twelve thousand eight hundred and seventy-seven dollars—averaging \$1,078 08 1-8 each. Five of them were under 7 years of age."

POISONED HAY.—A farmer in Ashtabula, Ohio, complains that he has lost seven head of cattle, by their eating poisoned hay. It appears that the poison is in the form of ergot, a smutty excrescence which grows on the June grass. It grows as it does on rye, in the shape of a diseased and enlarged seed, of dark color, varying from the size a wheat grain to threefourths of an inch long.

## Horticultural Department.

## PLANTING FRUIT TREES.

EDITORS SOUTHERN CULTIVATOR—As the present is the commencement of the season for planting Fruit Trees, and as we have had some experience in that important part of the art and mystery of Pomology, we think the following remarks may prove of some service to those who purpose to plant a few trees; and we do really think every planter and farmer in every Southern State should, at least, plant as many as ten trees in each year of his life henceforth. Trees can now be procured as cheap and good from Southern Nurseries as they can at the North; yet we think we speak within facts when we say that there is every year one thousand trees planted there where there is one tree planted at the South. This should not be so; for we have greater need of it in our extended and hot summers, for the promotion of health and pleasure than they have, and we have a more genial climate for its production, as well as superior varieties.

Why this apathy we cannot imagine, for we have yet to find the first person who is not fond of good fruit. It cannot be the expense, for we doubt whether every man who owns a farm or plantation, is afraid or grudges to pay out five dollars for a dozen trees including the cost of transportation. The Apple, the Pear, and Peach are true cosmopolites; are at home from Maine to Louisiana; while the Plum, the Apricot and the Nectarine are grown with ease in many localities. A few years since, it was supposed fruit could not be raised at the South. This idea has now become obsolete or dissipated by experience. A large portion of our Southern farmers never saw or tasted a specimen of our first class fruits in their lives, and this is the principle cause of their neglect of this delightful branch of Horticulture. Could we have the pleasure, of cramming one *Belle Lucrative* Pear into the mouth of every planter in the State of Georgia, next summer, we opine there would be such a demand for that tree next fall that every nursery in the United States would be exhausted of that variety.

The same would be the case with other fruits, were a dose or two administered; some may agree that "where ignorance is bliss 'tis folly to be wise;" it is rarely the case, however, when once the spell is broken, that the victim is willing to return to his former State; we never knew an instance where one commenced to have and enjoy good fruit that he was willing to be content with what he had; but, on the contrary, the pleasure it afforded, but incited a desire for more and better varieties; the enjoyment but created a desire for farther enjoyment. One of the first blessings conferred by the Creator upon man, was to eat of the fruit of the trees of the Garden of Eden, but from its scarcity and the apparent neglect of its cultivation at the South, one would be led to suppose every planter supposed his wife and daughters would follow the example of our mother, Eve, or that every tree concealed that arch enemy, the serpent!

To such we would say, have no prohibited trees there, but tell them to eat from the best and most pleasant to the taste and eye; if you but follow our advice we will be accountable for the consequences, with the exception of a slight colic occasionally from over-dosing with unripe specimens. We once had the pleasure of giving a few Seckle Pears to a young lady, who declared, on eating them, that "the skin of them was too good to be thrown away."

If any have boys or negroes who are predisposed to rob orchards or fruit trees, we would say it is but the incipient stage of Pomological taste, and ought to be encouraged by furnishing them with as many trees as they will plant and cultivate. Our word for it, as soon as their trees be-

gint to bear, the desire for their neighbors' fruit will cease, and a watchful care and honest pride will be exercised over their own.

J. VAN BUREN.

Clarksville, Ga., Oct., 1857.

### PROPER SIZE OF FRUIT TREES FOR TRANS-Planting.

At a recent meeting of the "Fruit Growers' Association of Western New York," one of the questions propounded, was

"What age is best for planting Apple and Pear trees from Nurseries to Orchards, to insure success?"

The members present proceeded to discuss this question as follows:

T. C. Maxwell said that when he commenced the nursery business, having no extra sized apple trees (as they were at that time in great demand,) he procured some, and they were planted in his neighborhood, with the small ones from his own nursery. The result was such as to convince himself and his customers that it was folly to plant large trees.

C. P. Bissell, of Rochester, five years since, at a good deal of trouble and expense, removed some large cherry trees to his grounds, and was so successful that he had been induced to try others, but had given it up as a bad job, and hereafter all he would seek would be a young healthy tree.

Mr. Berckmans said the French rule was, that a tree should make all its wood on the spot where it grows, and hence a tree is generally cut down to the ground after transplanting. When Mr. B. came to this country, he brought a ship load of pear trees, the best of his own and Van Mons' collections. The wood was injured on the voyage, and on transplanting he cut down to the sound wood, many to the ground. Those that were apparently uninjured were planted without much cutting; but they lingered for years and most of them finally died. Those that he cut down are now beautiful pyramids, requiring no care, and producing beautiful crops.

Mr. Fish once sold a collection of trees to a lady in Pennsylvania. While delayed at Corning, the mice got into the bundle and gnawed the bark off several of the trees, some six inches above the roots. He cut them down and made the lady a present of them. The present year, being in the neighborhood, he called to see the trees, and those that had been cut down were the finest of the lot.

Mr. Ainsworth said that when he commenced the nursery business he could not persuade people to buy his small trees. One of his neighbors went on a journey with his team in search of "fine, large" trees, and returned heavily laden with about fifty apple trees. In two years after there was hardly a tree living. He then bought small trees, and now has a fine young orchard. Nine years ago, two of his neighbors, one Mr. Wilbur, and the other being unsuccessful he would not name, determined to plant cherry trees. Mr. W. sent to Elwanger & Barry's and bought two years old trees, planted them, and they are now as beautiful trees as man ever looked upon. The other, on seeing the trees, made up his mind that he would find better trees than that, and succeeded in finding some big ones two or three inches through. They are alive now, but little larger than when first planted. The philosophy of the thing is this: when a large tree is taken up, so many of the roots are broken off that the tree starves before new roots are formed to furnish it sustenance.

Mr. Barry was glad to hear this question discussed. No doubt thousands of trees are destroyed by being removed too large. A young tree is checked but little by removal, and soon commences its growth. It would be well to be definite in our discussions. The question was: What

age is best? For the Pear, Cherry and Plum, two years was old enough, and if persons wished a model orchard, trees of one year old would be better.

These are the opinions of some of the most intelligent and experienced Fruit Growers in America, and should be considered *conclusive*. They have more force and significance in the South than at the North, where young trees are of much slower growth. The passion for "big trees," and the neglect of trees (big and little) after planting, are among the principal causes of the failures and disappointments which often attend amateur efforts at orcharding.—Eds.

### TREE PÆONY---(PÆONIA MOUTAN.)

EDITORS SOUTHERN CULTIVATOR.—In a former number of the *Southern Cultivator*, I mentioned the Tree Pæony (*Pæonia Moutan papaveracea*). The herbaceous species, however, are equally as beautiful, perhaps even comprising a greater variety of shades, from pure white to deep red. Every person who spent some spring in the gardens at the North could not help admiring the gorgeous, deep red Pænies. Even in our Southern mountains they are doing pretty well; but south of that mountainous ridge which runs through the upper part of South Carolina, Georgia, Alabama and Mississippi, their cultivation has repeatedly been tried and given up again; they are always killed by hot sun and carelessness. I have, however, for many years, succeeded perfectly in the cultivation of them, and by no other means than a little care and a proper choice of the varieties, as some kinds will stand our climate and bloom better than others. But any person who cannot give them a suitable situation, or is unwilling to devote a little extra attention to this magnificent flower, had better not meddle with them. It must always be borne in mind that they are natives of cool, shady places, such as are found on the north side of mountains. If treated according to this lesson of nature, success is certain.

The herbaceous Pænies will grow in almost any soil, preferring, however, a rich and deeply worked ground, say subsoiled two feet deep. The next thing is, to find a cool, shady locality. The north side of a building, so close to it even as to stand almost under the drip of the roof, where the sun never will shine on them, is an excellent place, and there they will need very little, if any, attention. If such a locality cannot be found, they may be planted on the "shadebed." This has been described in some earlier number of this periodical, but it may be proper to repeat it here. It is nothing but a scaffold raised over a bed, at least six feet high, that a person may walk and work conveniently under it. The sides should be open to admit the air freely, but the top should be covered, either with bagging or something still more open, as, for instance, a kind of trellis or canes, tied together in such a way as to form a blind, and sufficiently open, say with intervals of an inch, merely to break the direct rays of the scorching sun. This is all that is needed to insure success.

The different kinds of Pæony are natives of very different climates, as Siberia, England, Spain, Levant, Candia, Switzerland and China. The latter stand our climate best, and many new varieties have recently originated. Some of the finest of them are:

*Festiva*, yellowish white, with crimson centre.

*Papaverifolia*, creamy white, pink centre.

*Recessu atropurpurea*, dark purple.

*Tenuifolia*, scarlet

and many other varieties, all very double. These varieties, however, are, as yet, quite scarce, while the older varieties, as the deep red, and the purple ones are pretty plentiful.

ROBERT NELSON.

## GRAPE CULTURE AND WINE MAKING.

EDITORS SOUTHERN CULTIVATOR—On reading the excellent Essay of my friend and neighbor, "A. C.," in the October number, on the Culture of the Grape and Wine Making in this section, I doubted whether what is peculiar to myself in the culture and manufacture might not be understood fully without some farther elucidation of the system so pursued. The culture of the vine and its results being deemed by many as difficult, and requiring peculiar tact, I think it may be useful to aid in dispersing the mists which hitherto rendered obscure this matter to the public gaze.

It is not my intention to enter at large into the subject, but to confine my remarks to my own peculiarities as additional information.

In the first place, I prefer new sandy land, porous soil, and the clay remote from the surface—the pine logs to be hauled off the land and the pine tops and oaks to be burned of a rainy day, so that the leaves on the surface may not be all consumed. The land is then to be laid off (with stakes) by the plow at eight feet apart, and if the land is somewhat level (which I prefer) it is to be crossed at right angles the other way, 4, 5, or 6 feet distance, with the plow. The field then being laid off say 8 by 4 feet in the row, the 8 feet rows are to be ridged up with a half shovel plow by a furrow on each side—where the 4 feet rows cross this ridge, the top soil, for 18 inches square, is to be drawn to one side with the hoe and a hole made 18 inches deep and square by digging out with a steel spade and hoe, the subsoil to be scattered broadcast afterwards. The field being thus prepared, fill up the holes with top soil around it and raise it some inches higher than the land. All now is ready for planting—if with cuttings (which in favorable seasons do as well as roots) insert three cuttings into each hole so filled, the top bud of each cutting being just above the ground. The buds on the surface ought to approach and the lower ends of the cuttings be remote, one from the other. The object is, that in case all the cuttings should grow you can remove two of them without disturbing the main plant. Your land is now planted, and you will then break it as deeply as may be both ways with a long bull tongue plow and strong mule. The field is thus prepared, planted and broken up 6 or 8 inches deep. I recommend one spring and one summer plowing with the half shovel plow—the first off and the second to the vines, keeping the bushes down with the hoe and around the vines clean—all grubs and oak roots to be allowed to lie on the land, as their gradual decay keeps the soil in good heart and retains moisture.

Should your field be a hill side, one which has an eastern or southern aspect should be preferred, and it can be laid off by stakes and with the plow only one way, that is: horizontally, to prevent the soil from being washed away by floods of rain.

I will not say anything of the after cultivation, pruning or feeding of the plants, but will describe some peculiarities in the wine making as practiced with me. The grapes, when fully ripe and the dew has dried off in the morning, are gathered, hoed and all defective and half ripe berries being removed, are mashed in a half barrel with an oak pestle, so as to break the skins but not the seeds. This broken mass and the juice are emptied into the vat, where they are allowed to ferment from half a day to 3 or 4 days. The stems and seeds will rise to the top and must be pressed down in the vat three times a day, otherwise the top part may become acid and injure the wine. I ought to have mentioned that the vat as well as

the mash tub ought to be previously well cleansed, made water-tight and dried inside, before used and then a sulphur match should have been burned in the mash tub and in the vat—the sulphur match is made as in Europe, *i. e.*, by dipping strips of strong paper in melted sulphur so as to have a coat on both sides. The vat should, during the ignition, be covered with cloth, folded 3 or 4 times to exclude the air. The object of this is to destroy any acidity in the vat and barrels, and to consume as much of the oxygen gas as possible before the fermentation commences. The barrels are prepared in the same way, and as the must or fermenting juice drawn from the vat is poured into the barrel the sulphurous fumes ascend and pass off. This consumes the oxygen of the common air in the empty barrels by combining with it during combustion. The must, or fermenting juice being drawn off, the mass of stems and seeds are to be removed to the press and all the juice which runs from the first moderate pressure is to be added to the must in the barrel so as to nearly fill it. The second pressure ought to be kept by itself as of inferior quality.

This is the process pursued here, and is somewhat different from that described in the valuable paper alluded to; otherwise describing the system common to Mr. Caradeuc and to me in our several vineyards.

It may not be amiss to say something on deep arched cellars, since Mr. Longworth has expressed the opinion that wine could not be made at the South without deep arched cellars or large additions of alcohol to the must—with due respect, the fact is otherwise. The first wine made in this section, 9 or 11 years ago, was made in my barn. Vinegar was intended—wine was made and used as such. My wine house is a framed board house, having a cellar beneath ten feet deep. It has been used for several years. One part of the wine crop is in this house where the thermometer rises to 96, and the other part in the cellar. The result is the same, and alcohol is not thought of.

In this relation, I may add that Mr. Buchanan, in his valuable Treatise on the Culture of the Grape and Wine Making, Cincinnati edition, 1855, p. 30, speaks of sulphur fumigations as a *matter of course*.

It was my intention to suggest that porous sandy soil, remote from clay and new level land was to be preferred to clay soils and hill sides—the level land having the rays of the sun playing on its surface in regulated heat and light from early dawn to the close of day—that sulphur fumigations are useful, and that sound vines can be made at the South without being fortified with alcohol, and that the necessity for a deep arched cellar to keep out the heat at the South is, a myth, though it may be required at the North to secure regular fermentation without check from the external cold.

JAMES C. W. McDONALD, M. D.

Woodward, S. C., Oct., 1857.

P. S.—For a description of kinds of Grape Vines so cultivated and the quality of the fruits, see the *Southern Cultivator* for October, 1855, pp. 18 and 19.

REBECCA GRAPE.—The editor of the Boston *Cultivator*, thus speaks of this fine new native Grape:

We have received from Mr. Brocksbank, of Hudson, N. Y., a box of the Rebecca Grape. The bunches are very close and heavy, and the berries are perfectly ripened, showing the character of the variety fairly. These specimens confirm our previous impressions, that the Rebecca is decidedly the best grape grown in the open air that we ever tasted. We are sustained in this opinion by thorough connoisseurs. When we consider that this variety is perfectly hardy, and that it is sure to ripen in this latitude—being a week or ten days earlier than the Isabella—it must be admitted that it is a valuable acquisition.

### THE VINTAGE IN THE WEST---LETTER FROM R. Buchanan, Esq.

EDITORS SOUTHERN CULTIVATOR—In most parts of the Ohio Valley the vintage this year will be light. First the mildew, and then the rot destroyed over 3 4ths of the bunches of Grapes that set on the vines. So that the crop will scarcely average more than 75 gallons to the acre in this valley. A few vineyards, in peculiarly favorable portions, have good crops, but the majority are almost a failure. My own Vineyard of 8 acres, yields only 850 gallons. Had the fruit remained on the vines, a single acre would have produced as much. In 1853, I made 847 gallons to the acre, and my prospects this year, up to the 2d July, were equally as good. In Missouri, I am happy to say, the crop has been unusually fine; on some vineyards enormous. Altogether, a better crop than ever produced before, in that State.

In Illinois it is also good.

My friends in Tennessee complain of late frosts in the spring, and the rot in summer, cutting off more than half of their grapes; and in some parts of Georgia the vineyards were injured by late frosts.

I have heard nothing of late of Mr. Axt's estimate of 1000 gallons to the acre for the third year (from the cuttings) and 2,000 to 2,500 gallons for the fourth and succeeding years, being realized. I fear he was too sanguine in his calculations. The reports from my correspondents in Georgia were much below these estimates, but they were still so favorable as to lead me to believe that for grape culture, it was a better region than ours.

Some statements have lately been published by the ultra-temperance men, that grape culture for wine-making was about to be abandoned in the United States; that it was not remunerative unless the wines were greatly adulterated; and that large sums had been lost in attempts to succeed. Nothing can be more silly, or farther from the truth than such groundless assertions.

The Grape, like other crops, is subject to casualties, but my own experience thus far, prove it be more reliable than even the apple—the hardiest of all our fruits. With me, it has never yet failed to pay more than expenses; even this year, the worst we have ever had, it will pay a few hundred dollars; and in good years it pays enormously on the investment. Others, who manage with more economy than I do, can report still better. The largely increased sales of cuttings and roots, every year, satisfies me that this cultivation is rapidly spreading, and cannot now go back.

R. BUCHANAN.

Cincinnati, Ohio, Oct. 1857.

### VINEYARDS---COST OF POSTS---YIELD PER Acre, &c.

EDITORS SOUTHERN CULTIVATOR—In one of the Columbus papers I read an article entitled "Grape Growing and Wine Making Made Easy," which was copied into that paper from the *Southern Cultivator*. I was really delighted to see it, for I have been for the last year collecting all the information on the field culture of the Grape possible, with a view to entering into the business largely. I was very sorry that Mr. A. DeCaradeuc did not give an estimate of cost per acre of his mode of preparation. The posts alone, as you will readily perceive, will be an item of no little expense. The rows ought not to be more than seven feet apart, and the vines not more than five feet in the row. Taking these figures as correct there will be 30 rows to the acre and 42 canes to the row. 42 by 30—1260. One post is necessary to each cane. Whether these posts be obtained at the saw mill or are hewed out by hand, they will cost not less than twenty-five cents a piece delivered on the ground; 4—1260—\$315. Thus you perceive it will cost \$315 per acre for posts.

I have already subscribed for several Agricultural jour-

nals and expect next year to become a subscriber for yours. Therefore, as one interested, I hope you will furnish through the columns of the *Southern Cultivator* all the information you can obtain. The subject is one growing in interest daily, and is destined, I think, to increase largely the wealth of this country.

I am preparing to set out twenty acres in vines this coming winter. My land, I think, is admirably adapted to the growth of the vine. It is a sandy soil, high and dry, and from 10 to 40 feet to clay.

Can you tell me the average yield per acre of any of the Georgia or South Carolina vineyards; the cost of preparation and cultivation up to the first crop, and the number of acres tended per hand?

You will find \$1 enclosed for the *Southern Cultivator*. Please send me the back numbers of this year.

Yours, most respectfully,

JAS. R. ROGERS.

Hardaway, Ala., Oct., 1857.

[We are pleased at the interest which our correspondent feels in this subject, but we think he over-estimates the cost of the posts, especially to farmers or planters who own extensive forests—the saplings or "thinnings" of which may be used for that purpose. Three acres of ground laid off in three foot drills and sown in China Berries,\* thinning the plants to one foot apart in the drill, will give, in three years, from thirty to forty thousand excellent and durable stakes. The land, during the three years, will only need to be kept as clean as a corn field. Many will consider this "too much trouble"—but success in vine culture, as in anything else, is only to be purchased by forethought and industry. Slight, temporary stakes, costing little or nothing, will answer for the first year or two, and if the China Berries are sown in rich ground when the cuttings or vines are planted, the stakes will be ready when needed. We shall be glad to hear further from all the gentlemen who are engaged in this most important enterprise—the success of which (when properly managed) we are gaining more and more faith in, day by day.—Eds.]

ISABELLA GRAPE—ITS ORIGIN, &c.—General J. G. Swift, of Geneva, New York, in a letter to the *National Intelligencer*, gives the following as the origin of the Isabella Grape:

"It originated at Goose Creek, near Charleston, South Carolina, and is a hybrid of the native fox and the Burgundy of the Huguenots. George B. Smith of North Carolina brought the grape vine to Smithville in 1809, and Mrs. Gibbs took a cutting from Governor Smith's garden to Brooklyn Heights in 1817. In 1819 I purchased the Gibbs place, on Brooklyn Heights, of George Gibbs, Esq., who came from Bladen county, North Carolina; Col George Gibbs was from Newport, Rhode Island. In 1820, from the first well grown vine in my garden, I gave cuttings to William Prince, of Flushing, who, in compliment to Mrs. Swift, proposed to name the grape 'Louisa.' Mrs. Swift objected, saying Mrs. Gibbs' 'Isabella' was the more entitled to the name; and thus the name. Mr. Seaton may remember that in 1822 I gave him and Mr. Calhoun, Secretary of War, plants of the Isabella. As to the hybrid character of the plant, the two faces of the leaves show the upper to be Burgundy and the lower Fox.

\*"Pride of India"—*Melia Azederach*.

## Advertisements.

## FRUITS, FLOWERS AND SHRUBS FOR THE SOUTH!

1857--8.

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1857--8.



THE SUBSCRIBER offers for Fall and Winter planting, choice TREES of the following kinds, all of which have been proved to be well adapted to the South:

**APPLES**—a complete succession, ripening from June until December, and keeping throughout the winter and spring; mostly Southern Seedlings, and many new and rare. Price, 25 cents each—\$20 per hundred.

**PEACHES**—the choicest collection ever offered in the South—affording a succession of fruit from June till November, and including many Southern varieties found in no other collection. Price, 25 cents—\$20 per hundred.

**PEARS**—STANDARDS and DWARFS—a selection of the best for this climate, including many very superior varieties from the noted collection of Louis E. Berekmans, Esq. Price, 50 cents—\$40 per hundred.

**GRAPES**—strong, rooted plants of Catawba, Isabella, Warren, Pauline, Lenoir, Scuppernon, and other native varieties for Vineyards and out door Arbors; also many of the fine foreign varieties, such as Black Hamburg, Cannon Hall Muscat, Black Morocco, White Tokay, Syrian, Champagne, &c., &c. Vines and cuttings by the quantity, on reasonable terms. For prices, &c., see Catalogue. (A "Treatise on Grape Culture" mailed free to all applicants.)

**STRAWBERRIES**—a selection from 30 or 40 varieties, including Hovey's Seedling, McAvoy's, Longworth's, Jenny Lind Peabody's new Hautbois, Wilson's Albany, Early Prolific, &c.,—forming an unrivalled assortment.

**APRICOTS, NECTARINES, PLUMS, CHERRIES, FIGS, ALMONDS, RASPBERRIES, BLACK-BERRIES, POMEGRANATES, WALNUTS, &c., &c.**, many of the choicest varieties, for which see Catalogue.

**ROSES**—all the finest and most beautiful varieties, grown mostly on their own roots.

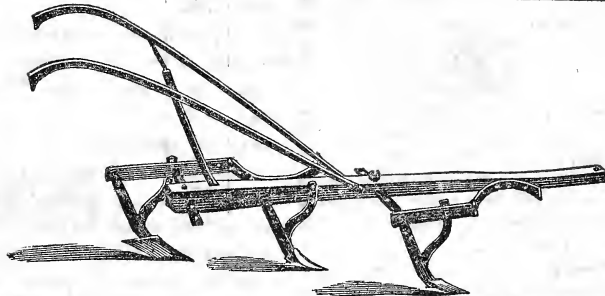
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**HEDGE PLANTS**, both defensive and ornamental, including Osage Orange, Honey Locust, White Macartney, Cherokee, and Fortune's Yellow Roses, &c.

**OSIER WILLOW** Cuttings, for basket making, several varieties, &c., &c.

Labeling, packing and shipping, very carefully attended to.

A new and very complete Descriptive and priced Catalogue for 1857-'58, now ready, and will be mailed, postage free, to all applicants. Address: [Nov57] D. REDMOND, Augusta, Ga.



## THE DOUBLE-ACTING CIRCLE-ADJUSTING PLOW.

THIS PLOW is so constructed that you may run one, two, or three shares, from one to twelve inches in breadth, deep or shallow. In plowing in small grain, breaking, bedding and listing, one hand, two mules and three shares prepares three to four acres per day. (In stiff lands two shares, two mules and one hand, saves the labor of one hand.) After thorough preparation, one hand, with one mule does the work of two; running the Scooter and Shovel for Corn (if desired), and the Plow and Scraper for Cotton, or Sweeps, if preferred; thereby adding at least 50 per cent. to the planting interest.

I offer very liberal inducements in the Rights of Counties and States. Address

Dec57--tf

C. B. MAGRUDER,  
Thomasville, Ga.

## DOWNING HILL NURSERY, ATLANTA, Georgia.

THE subscribers offer for sale an extensive collection of FRUIT TREES GRAPE VINES, ORNAMENTAL TREES and SHRUBS, grown and adapted to the Southern climate.

Apples—two hundred varieties ripening from June to December including all of the best Southern Seedlings, a number of the latter keeping in this climate until April. Price 25 cents each or \$20 per hundred.

Peaches—one hundred and fifty varieties, the largest and best collection in the South, including foreign and native varieties ripening in succession from the 1st of June to the 25th of November. Price 25 cts. each, or \$20 per hundred.

Pears—one hundred of the best foreign and native varieties, Dwarfs on Angers, Quince Standards on Pear roots. Price 50 cents, or \$40 per hundred.

Grapes—ten thousand and two year old Vines of the celebrated Catawba, for vineyards, at \$100 per thousand; Catawba cuttings from our own and Charles Axt Southern Vineyards, in any quantity, at \$15 per thousand. Also, the following hardy varieties well suited to this climate. Blande Madeira, Clinton, Diana, Devereux, Isabella, Lenoir, Ohio, Sherry, Tokay, Tokalon, Warren and Scuppernon.

A large collection of the best Cherries, Plums, Nectarines, Apricots, Figs, Mulberries, Strawberries, Pomegranates, Quinces, Blackberries, Gooseberries, &c., &c.

Catalogues sent by mail to all applicants free of charge.

PETERS, HARDEN & CO.,  
Atlanta, Ga.

Dec57--3t

## GRASS SEED.

RED and White Clover, Blue Red Top, Orchard, Timothy and Lucerne GRASS SEED, just received and for sale by  
Dec57--tf W. M. HAINES, Augusta, Ga.

## SOUTHERN MACHINERY DEPOT.

PORTABLE STEAM ENGINES, from 2½ to 15 horse power.  
STATIONARY STEAM ENGINES, from 15 to 50 horse power.

PLANTATION SAW MILLS, to make from 3,000 to 10,000 feet of lumber per day.

CORN MILLS, from 14 inches to 36 inches, made of best French solid Burr Stones.

DRAINING PUMPS, to throw from 700 to 17,000 gallons of water per minute.

WELL PUMPS, to lift and force water from wells 100 feet deep.

Rubber and Leather BELTING.

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Carpenters, Blind, Sash and Carriage Makers LABOR-SAVING MACHINERY.

TINNERS' TOOLS.

Circular, Sash and Mulay SAWS.

Solid French Burr MILL STONES, &c.

For prices and particulars, a pamphlet will be sent to any one desiring it.

Dec57--1y

D. C. LOWBER & CO.,  
98 Magazine street, New Orleans.

## IMPORTED GARDEN SEED.

A FULL and extensive assortment of the best English GARDEN SEEDS have just arrived, and are for sale, wholesale or retail, by [Dec57--tf] W. M. HAINES, Augusta, Ga.

PEABODY'S PROLIFIC CORN, &c.

A SUPPLY of Peabody's Prolific CORN, the Chinese Prolific PEA and the Chinese SUGAR CANE SEED, all warranted genuine, just received and for sale, at lowest cash prices, by  
Dec57--tf W. M. HAINES, Augusta, Ga.

Orders from the Country solicited.



**To Southern Fruit Growers.**

SOUTH DOWN SHEEP.

**FRUIT AND ORNAMENTAL TREES,**  
Plants. &c.

C. B. SWASEY & CO.,  
Yazoo, City, Miss.

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## AUGUSTA NURSERY.

**EXTENSIVE COLLECTION OF SELECTED  
ROSES AND SOUTHERN RAISED  
FRUIT TREES.**

CROWDER COTTON SEED.

draw, will be

DR. A. W. WASHBURN,  
Yazoo City, Miss.

## CO-PARTNERSHIP NOTICE.

THE Co-Partnership between the undersigned, heretofore existing under the name and style of JAMES M. THORBURN & CO., is this day dissolved by mutual consent. All debts due to said firm are required to be paid to, and all outstanding obligations are assumed by the new firm, this day formed, under the same name and style.

WM. H. ELPHINSTONE,  
GRANT THORBURN, JR.,  
FRED'K. W. BRUGGERHOF, } General Partners.  
JAMES M. THORBURN, Special Partner.

New York, October 1st, 1857.

THE undersigned have this day formed a Co-Partnership under the name and style of JAMES M. THORBURN & CO., for the transaction of the SEED, PLANT and NURSERY BUSINESS, at the old stand, No. 15 John street.

JAMES M. THORBURN,  
GRANT THORBURN, JR.,  
FRED'K. W. BRUGGERHOF.

New York, October 1st, 1857.

Dec57-1t

## POMONA HALL NURSERY--CLARKSVILLE, Georgia.

THE subscriber offers for sale a large collection of your g FRUIT TREES, consisting of Pears, either grafted on the Quince or Pear stock; Apples, both Standard and Dwarf; Cherries, on the Mazzard or Mahaleb; Peaches, Nectarines Plums and Apricots. Among which will be found nearly every old or new variety that has proved to be valuable at the North or South, and particularly at the South and including the splendid Southern Seedling Apples and Peaches that have been discovered in the last few years, most of which have been tested in his own orchard.

A descriptive and priced Catalogue, together with directions for planting, if required, will be sent free of postage to all applicants. All orders will be promptly attended to, and can be forwarded by Railroad from Athens to nearly any point.

JOHN R. STANFORD, Clarksville, Ga.

Dec57-1f

## GRAPE CULTURE AND WINE.

PERSONS desirous of planting vineyards are respectfully informed that the undersigned are prepared to enter into Contracts at such rates as ought to induce every Planter and Farmer to experiment with a few acres; being convinced from observation of experiments already made that Northern Georgia, Alabama, and East Tennessee, are better adapted to the Grape than any portions of the United States, the Great Valley of the Ohio not excepted.

The cultivation of the Grape, and the making of Wine has been our occupation from early childhood, our parents having extensive vineyards of their own in Germany. This gives us a practical experience, which authorises us to say that satisfaction in all cases will be guaranteed, and success warranted.

We respectfully refer the public to H. W. Massengale, Chattanooga, Tenn.; X. G. McFarland, Rossville, Walker county, Ga.; Isaac B. Nichols, Opelika, Cataosa county, Ga., and W. F. W. Fischer, Dalton, Ga.; Mr. Fischer's Vineyard was planted by us, and being on the Railroad, we invite persons to call and examine for themselves.

We have for sale, as well as to plant, a large quantity of Catawba CUTTINGS, and upwards of 40,000 Rooted VINES, which will mature one year earlier than the cuttings. We solicit a share of public patronage, and will deliver either rooted vines or cuttings, during the planting season, at Chattanooga or Knoxville, Tenn.; Dalton, Rome, Atlanta or Augusta, Ga.

CHARLES PHILLIPPI,  
JOHN SCHMITT.

Rossville, Walker Co., Ga., Nov., 1857.

Nov57-3t

## SAUL'S NURSERY, WASHINGTON, D. C.

FRUIT TREES, EVERGREENS, DUTCH BULBOUS ROOTS, &c. The proprietor respectfully calls the attention of Nurserymen, Planters, &c., to the following nursery stock, which are remarkably fine this season, and low in price:

20,000 Dwarf Pears, choicest varieties native and European, those best suited to the Quince stock—very fine trees.

15,000 Peach Trees, standard kinds—splendid trees—Apples, Apricots, Cherries, Plums, Quince, Grape Vines, Strawberries, Raspberries, Blackberries, &c.

20,000 Currants, Red and White Dutch, Red and White Grape, Victoria, Black Naples, &c.—strong plants.

20,000 Gooseberries—the large English varieties—strong.

500,000 Norway Spruce, 4 to 6 and 6 to 8 inches, transplanted, stocky and well rooted.

20,000 Chinese Arbor Vitæ—two year seedlings.

15,000 Silver Maple Seedlings.

Dutch Bulbous Roots—an extensive collection—received direct from Holland about middle September, and from houses with which I am acquainted.

Garden and Flower Seeds in great variety, with all articles pertaining to the nursery and seed trade, of best quality and cheap. Catalogues can be had on application.

JOHN SAUL,  
Washington City, D. C.

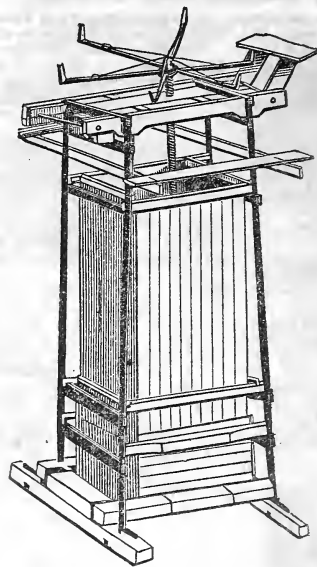
Nov-3t

## SOUTHERN CULTIVATOR FOR 1856,

BOUND volumes of the SOUTHERN CULTIVATOR for 1856. It may now be obtained at this office. Price, \$1.50. Or we will send it by mail, post-paid at \$1.80. Address,

WM. S. JONES, Augusta, Ga.

## TO COTTON PLANTERS.



THE Subscriber has thoroughly tried at Macon and Columbus, Georgia, his wrought Iron COTTON SCREW, where two of them are now standing and will remain until October for inspection. I believe it is the cheapest, by half, ever offered for the purpose of pressing cotton or hay, as the frame, screw-pin, and levers are all of wrought-iron. It should be attached to the gin-house, and have it put up through the floor, as the ordinary press—the levers being only five feet in length—to have the width of the house and 18 or 20 feet in length, the lint could then be placed all around the screw. Then a man can take five hands and pack as many five hundred pound bales in one day, with as little labor to the hand, as the same five and two more, with a horse, can on the wood-screw in the same time. Three hands can put up one and take it down, and it can be carried at one load with four mules to any point. As this is for the public eye, I will give the amount of timber necessary for completing one:

1	piece	17	feet	long	4½	by	9.
6	"	17	"	"	2	by	9.
2	"	17	"	"	4	by	6.
18	"	9	"	"	2	by	12.
3	"	16	"	"	2	by	4.
5	"	10	"	"	1	by	10.

1	"	14	"	"	6	by	16.
2	"	13	"	"	2	by	12.
2	"	14	"	"	1½	by	9.
2	"	10	"	"	1	by	5.
1	"	5½	"	"	9	by	23.

This to be of tough timber—pine or oak.

This makes a box near nine feet deep with bed and follower, and all other fixtures. I furnish the iron and the work done on it at Macon and put the above lumber to it at the place where it is wanted, the purchaser, furnishing the lumber and paying the freight from Macon, can have one of the handiest and cheapest Cotton Screws now known, its durability considered, as it is given up by all who have seen it to be a lifetime investment. I can pack 500 pounds with three hands—take five hands and there is no hard work done. Price \$150 this year.

I expect, if life lasts, to have one at the next State Fair, and would be glad to see one of every other pattern of presses now in use there, and let the world judge for itself. I then expect to sell the right in any size territory that may be desired on reasonable terms, with a working model, within the limits of such county or counties, and all the information necessary for putting them up and working them. Address

Nov57-1f

JAMES MASSEY,

Thomasville, Ga.

## LANDSCAPE GARDENING.

THE subscriber will devote a portion of his time, the coming winter to LANDSCAPE GARDENING, LAYING OUT GROUNDS, PLANTING ORNAMENTAL TREES, SHRUBBERY, &c. &c. When the distance is not too great, he will superintend all operations in person; and will furnish plans to remote applicants who will describe their grounds and state clearly their desires. Address

Nov57-1f

ROBERT NELSON,

Augusta, Ga.

## NEWMAN'S THORNLESS BLACKBERRY.

FINELY rooted PLANTS of this valuable new variety will be sent out this season at \$4 per doz.; \$10 per fifty; \$18 per hundred, and \$130 per thousand. Address

A. A. BENSEL,  
Milton, Ulster, County, N. Y.,  
Sole Agent for sale of plants.

Nov57-1t

## WASHBURN'S PATENT AGRICULTURAL Implements

ARE unquestionably the greatest advance in the adaptation of labor-saving Machinery to the production of Cotton that has been made since the invention of the Saw Gin.

The COTTON and CORN PLANTER performs the entire operation of planting with one hand and one mule ten acres a day. It reduces the ridge, no matter how rough or cloddy, to a smooth oval surface; opens the drill to any desirable depth, equally in soft or hard ground; deposits the seed in any desirable quantity, all the seed taking position in line at the same depth and, therefore, coming up at the same time; closes the drill and lightly compresses the surface, leaving it free from clods, not liable to be uncovered or covered deeper by hard rains, and securing a perfect stand in the driest weather.

The combined SCRAPER and HILLER is a double-acting machine, doing the work on both sides of a row at once. When used as a Scraper, operated by one hand and two mules, it bars off and scrapes both sides of a row at the rate of ten acres a day in the most perfect manner, so as not to cover up cotton when it is just out of the ground.

It enables one hand and two mules to perform what now requires four hands, four implements and four mules. The same machine, when used as a Hiller, moulds both sides of a row at once, graduating to any desirable depth, the dirt placed around the young plants, so that all are dirted (not covered up) and the surface of the row left free from clods.

The operation of moulding young corn and cotton with this machine is performed with ease to the hand and team at the rate of ten acres a day. Both machines are made of iron and well seasoned white oak timber in the most durable manner, and will last indefinitely. All necessary repairs can be done on the plantation by an ordinary blacksmith and carpenter.

The whole crop of corn and cotton can be planted, scraped, moulded by the use of these machines with two-thirds the force now required, and the work better done than by any other method.

Our mode of business is to receive the Draft of the planter on his Merchant (or any one whom he may authorize to pay his Draft,) payable on the first of January, February or March, and we will deliver the machines in time for use. Should the money be drawn and the machines not delivered in time for use we will refund it immediately on notice. Freight and forwarding charge must be paid by the consignee, or they cannot be delivered.

Those who desire to use them next season should order immediately, as none will be made except to order, and the supply of material collected for the season's manufacture will depend on the number of orders.

Several orders failed to be filled last season for want of materials owing to the lateness of their receipt.

The price of the Planter is \$50, the Combined Scraper and Hiller, \$50, cash on delivery.

For Machines and County Rights, address

A. W. WASHBURN & CO.,  
Yazoo City, Miss.

### Testimonials.

On Friday last we visited Mr. James P. Sessions farm near Jackson, for the purpose of examining the agricultural implements, patented by Dr. A. W. Washburn, as well as to see them operated in the field by Col. James J. B. White. We are highly gratified and pleased with each. The planter is unexceptionable, and performs its work with great speed and perfection.

We confidently recommend them to the patronage of all planters, believing that they are, as heretofore represented by many planters and overseers, truly labor-saving machines.

George S. Yenger, J. M. Moore,  
Madison McAfee, G. W. Russell,  
J. A. Horn, Oliver Barrett,  
C. A. Moore, Howell Hobbs,  
J. R. Harris, R. N. Eubank,  
T. Graves, James P. Sessions.

"GOOD INTENT PLANTATION," DEAR CREEK, }  
Issaquena Co., Miss.; Sept. 30, 1856. }

To Col. James J. B. White:—Dear Sir:—Having minutely examined, and further witnessed the operation of Dr. A. W. Washburn's newly invented Cotton Planter, and Scraper, I take great pleasure in pronouncing them perfect and complete machines, for the work they are intended to perform; having extensively patronized them myself, I confidently recommend them to the use of all planters, believing they will insure and maintain a certain stand of cotton.

Yours very respectfully,

CHARLES J. FORE.

The undersigned have seen Dr. Washburn's Agricultural Implements in operation, and are satisfied that for speed and perfection of work, they surpass anything we have ever seen.

PLANTERS.  
Joseph Andrews,  
James J. B. White,  
George W. Woodberry,  
E. B. Russell,  
A. G. Bennett,

OVERSEERS.  
D. H. Howson,  
J. B. Garrott,  
Wm. L. Clark,  
Jno. T. Jenkins,  
H. G. Goecker.

It has been repeatedly said of the Planter that there is neither room nor need for further improvement. But we shall improve on those made hereafter in several mechanical points, which will render more attainable and still more perfect the complete result.

Finding the Chopper unimportant, we have discontinued it, and combined the Scraper and Hiller into one machine. This will cheapen the price of the set, save transportation, and make a more convenient as well as better Scraper. With the combined Scra-

per and Hiller, cotton may be scraped close to the drill, as soon as it is out of the ground, without being covered up, thus facilitating the rapid forwarding of a late planting, or preventing the establishment of an early stand of grass on land that has been in corn.

These improvements render Washburn's Planter, and Combined Scraper and Hiller the most valuable labor-saving implements ever offered to the cotton planter. The work of each, whether planting, scraping, or hilling, is done by one hand at the rate of ten acres a day in an efficient and uniform manner, surpassing in every element of perfection similar work done by any other means. They unquestionably pay for themselves in one year, while they last many years. The following is some of the testimony which the trial of these machines has elicited. It will be observed that some of the names are the same which were given last year. The reason of this is that their first opinions were formed on witnessing a mere experiment in our own fields, or where they might suppose the most favorable circumstances had been secured for exhibiting to advantage.

Now they testify positively of their own extensive use.

MONTEREY, YAZOO COUNTY, April 1, 1857.

I am planting with three of Washburn's Planters and am satisfied they do the best planting I ever saw. J. M. DEMENT,  
Overseer for A. M. Payne.

April 1st, 1857.

I have tried Washburn's Planter and am satisfied with the work and recommend it to the planting community.

D. McCURRY,  
Overseer for Col. J. D. Stewart.

April 1st, 1857.

I have tried Washburn's Cotton Planter, and find it all that it is represented to be.

N. B. STREET,  
Overseer for Joseph Andrews.

IVANHOE PLANTATION, April 13th, 1857.

Having used one of Dr. A. W. Washburn's patent Planters, I feel no hesitation in saying that the same works beautifully, so much so that, in my opinion, he has left no room for further improvement in the way of an implement with which to plant cotton.

S. GROVES CHAMBERS,  
Overseer for Geo. S. Yenger.

YAZOO COUNTY, May 3, 1857.

Dr. A. W. Washburn:—Dear Sir:—I have secured a perfect stand of cotton under most unfavorable circumstances, by using your Planter.

JAMES P. ORILEY,

YAZOO COUNTY, April 12, 1857.

Dr. A. W. Washburn:—Dear Sir:—I have witnessed a thorough trial of your Cotton Planter. It performs admirably, and cannot fail to give universal satisfaction. Very respectfully,

W. PARKER SCOTT, Episcopal Minister.

WYOMING PLANTATION, May 28, 1857.

Dr. A. W. Washburn:—Dear Sir:—Having thoroughly tested your Planters, both on the Hill sides and level lands, I feel no hesitation in pronouncing them the best implements of the kind I have ever seen, and would recommend them to every planter who desires to secure a perfect stand. Respectfully,

J. W. THOMSON.

Dr. Washburn:—Dear Sir:—I have in operation on my plantation (which is hill-land with circled rows about 3½ to 4 feet wide) one of your Cotton Planters, and am fully satisfied with its performance. It does the work, in my opinion, perfectly.

C. BOWMAN.

Extract of a letter from Mr. W. Monroe Quin.

QUIN'S STATION, N. O. & J. R. R., }  
Pike Co., Miss., April 27, 1857. }

Dr. Washburn & Co.:—I have planted my whole crop with your Cotton Planter, and upon the whole, I now think that it is as high perfect as can be made, and, to a practical planter, is bound to give perfect satisfaction, and work a reformation among Southern agriculturists, as well as (I hope) to pay you well for your invention. With my best wishes for the further improvement and wide extension of what I consider now the best Agricultural Implements of the age, allow me to remain,

Yours, W. M. QUIN.

YAZOO COUNTY, June, 1857.

I have used Dr. Washburn's Planter for planting, and his Hiller for moulding cotton, in managing Dr. Woodberry's crop, and think too much cannot be said in their favor.

THOMAS VANCLEAVE.

INCHUCA, near Yazoo City, June 10, 1857.

A. W. Washburn & Co.:—I have planted considerably over one hundred acres of cotton with Washburn's Patent Planter; and have obtained a perfectly healthy stand under most unfavorable circumstances. I have also used the Hiller, which (after I had braced the plows) speedily relieved me from the danger of being injured by grass, by enabling me to mould from eight to ten acres a day with one hand, doing the work in the most perfect manner. It works easily to the hand and team, effectively and with the most beautiful uniformity. In short, the Planter and Hiller are unexceptionable and invaluable. I would not be without them in future were the price doubled.

G. W. WOODBERRY.

YAZOO COUNTY, Miss., June 20, 1857.

A. W. Washburn & Co.:—Gentlemen:—I have planted the entire crop under my management, corn, cotton, and some Osage Orange for hedging, with Washburn's Patent Cotton Planters. I have scraped and hilled it with his Scraper and Hiller, and have experienced no difficulty in obtaining the most perfect uniform and healthy stands I ever saw. I have had no lice or any other disease common to young cotton.

I have no hesitation in pronouncing Washburn's Planters, and

Combined Scraper and Hiller the most valuable labor-saving implements for the field ever offered to the planter.

They work easily to the hand and team, and do the work thoroughly, and with a degree of uniformity and exactness, unequalled by any other method, and unimaginable by one who has not seen them work. They are very durable and easily kept in repair, and, in my opinion, will pay for themselves in one year.

M. S. INGRAM.

St. FRANCISVILLE, La., April 28, 1857.  
Dr. A. W. Washburn—Dear Sir:—I have used the Cotton Planter, purchased of you, and my neighbors as well as myself are very much pleased with its performance. I shall want two more for next season, and think there will be a demand for them in this Parish as soon as they become known.  
H. H. CONNELL.

YAZOO COUNTY, June 24, 1857.

A. W. Washburn & Co.—Gentlemen:—I have used Dr. Washburn's Planter, and Scraper and Hiller this season, with unparalleled success. They are capable of securing a more perfect stand, while they do the work better than by any other means I have ever known. The Planter being already sufficiently perfect, the combination of the Scraper and Hiller into one machine, by reducing the cost and facilities, and improving effect, has left no room for further improvement.

I shall use them more extensively next season, and shall want some more machines.  
Yours truly,  
JAS. P. O'REILLY.

Sept 57—tf

## NEW TREATISE ON LAND SURVEYING.

Just Published

BY E. C. & J. BIDDLE, Philadelphia. A TREATISE ON SURVEYING, in which the theory and practice are fully explained. Preceded by a short Treatise on Logarithms, and also by a compendious system of Plain Trigonometry. The whole illustrated by numerous examples. By Samuel Alsop, author of a "Treatise on Algebra," &c. In the above named work, the author has given definite and precise directions for practice, and has embraced in it everything which an extensive business in Land Surveying would be likely to require.

The work will be mailed at \$1 75 per copy, including postage.  
Nov—3t

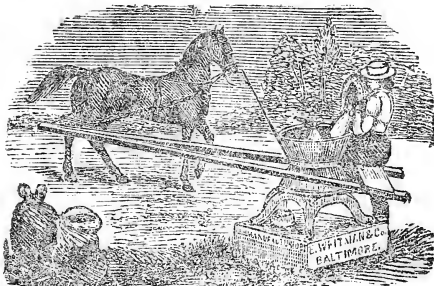
## WASHINGTON NURSERY—COLUMBUS, Mississippi.

W. C. TUCKER, Florist and Nurseryman, Columbus, Miss., has constantly on hand a large and splendid assortment of Apples, Pears, Peaches, Nectarines, Apricots, Plums, Cherries, Almonds, Figs, Pecans, Grapes, Raspberries, Currants, Strawberry.

Rare Evergreens, Roses, Vines, Trees, Shrubs, &c., Bulbous Roots, and Greenhouse Plants of the most beautiful and choice descriptions.

All plants ordered will be carefully packed in moss. Catalogues sent where desired.  
Nov 37—5t

## CORN AND COB MILLS.



THE undersigned have now in store and offer for sale the following CORN AND COB MILLS:

LEAVITT'S "YOUNG AMERICA," and  
MAYNOR'S "CHAMPION."

The Manufacturers of the "Young America" claim for this Mill: 1st. That it will crush Corn and Cob; also, grind fine Meal. 2nd. That the entire grinding surface can easily be replaced at a small cost.

3rd. That it has an extra set of fine and coarse plates.

4th. That it deposits meal in a box or bag.

5th. That it has taken the premium over both the "Little Giant" and "Star Mills," at the Ohio State Fair for 1855.

6th. They submit the following table, showing the time occupied and number of revolutions made by each of the Mills on exhibition at the Fair of the Maryland Agricultural Society for 1855, in grinding half of a bushel of Corn and Cob:

	Time.	Revolutions.
"Young America".....	2½ Minutes.	10.
"Little Giant".....	4½ "	15.
"Maynor's Champion".....	5 "	20.
"Colburn's Mill".....	7½ "	32.

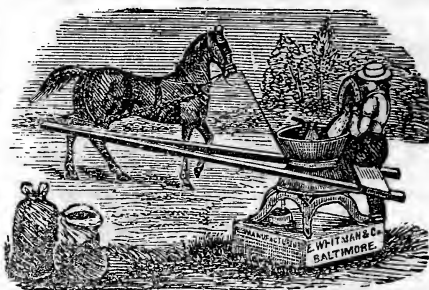
The Manufacturers of "Maynor's Champion" claim that it is the simplest in construction, strong and durable, its grinding part lasting (not being made on the coffee mill principle) and that for long and steady work it is the best Corn and Cob Crusher in use.

Nov 56—tf

H. & J. MOORE & CO.

## YOUNG AMERICA CORN AND COB MILL.

The Cheapest and best.



WE offer for sale the above MILL, which surpasses all others in speed and durability, simplicity and strength as well as economy. That part of the Mill most liable to wear being separate from the main body, can at any time be removed at a small expense.

The above Mill has received the first premium at the State Fairs of New York, Ohio, Michigan, North Carolina and Tennessee, as also at a large number of County Fairs in various States.

THE YOUNG AMERICA MILL performs its work better and nearly twice as fast as any other Corn or Corn and Cob Mill yet offered to the public.

Planters are invited to examine the Mill and compare its advantages.  
JOHN & THOS. A. BONES.

March—tf

## PORTABLE STEAM ENGINES.

THE subscriber respectfully calls the attention of Southern Planters and Mechanics to the PORTABLE STEAM ENGINES, of which he has the Agency in New Orleans. They are so simple in their construction that any negro of ordinary capacity can be taught to run one in a day. For driving light machinery, running cotton gins, plantation saw mills, or corn mills, pumping water, steaming food, etc., they cannot be excelled. A striking feature of these engines is that they cost less than would mules or horses, to do the same amount of work. A pair of horses will readily move them place to place over any ordinary road. They require no brick-work to set them up, but they are already to be put in operation, with the exception of a smoke-pipe or chimney. One is kept at work in the subscriber's warehouse every day between 9 and 3 o'clock, and all are invited to call and inspect it. The Planter, especially, should look with pleasure upon the introduction of these Engines, to take the place of horse-power in ginning cotton and grinding corn, as the cost of running a 6, 8, or 10 horse Engine is much less per day than the expense of feeding the same number of horses:

### PRICES.

2½ Horse Power.....	\$375
4 do. do. ....	500
6 do. do. ....	700
8 do. do. ....	900
10 do. do. ....	1,100

A pamphlet containing fuller particulars will be sent by mail to any person requesting it. Address,

D. C. LOWBER,  
Feb 57—1y 98 Magazine St., New Orleans.

## GRAPES FOR THE SOUTH!!!

THE subscriber offers for sale several thousand rooted Vines and Cuttings of the following varieties of Native Southern GRAPES, all of which have been proved to be fully adapted to the climate, and excellent both for Wine and the Table:

Isabella, Black July, Pauline,  
Warren, Catawba, Scuppernon.

Gentlemen wishing to plant largely for Wine making, will be supplied with rooted vines or cuttings on very liberal terms. A plain, practical Treatise on the Culture of the Vine in the open air, as successfully practiced in South Carolina and Georgia, will be freely mailed to all purchasers of vines; or to other applicants who enclose a postage stamp.  
D. REDMOND,  
Sept 57—tf Augusta, Ga.

## RUMSOM NURSERIES.

25,000 PEACH TREES, of fine growth and approved varieties.

10,000 OSAGE ORANGE PLANTS for Hedging.

5,000 ASPARAGUS ROOTS.

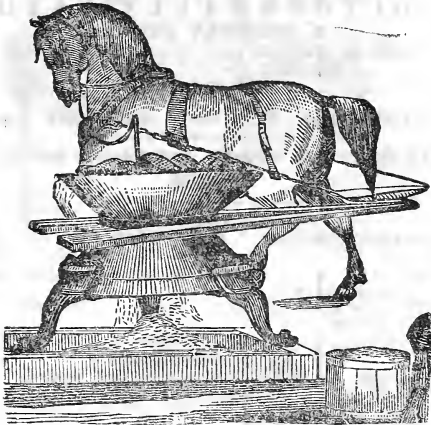
Also, STRAWBERRY PLANTS, Basket WILLOW (*Salix Helix*) CUTTINGS, &c. ASHER HANCE & SON,  
Oct 57—3t Near Red Bank, Monmouth co., N. Y.

## BLACK ESSEX HOGS.

FOR SALE, a few pair of three to four months old, at \$20 per pair. For Lot Hogs, I consider this breed superior to any other—they cannot be made to take the mange, and are free from cutaneous eruptions and disease of the lungs, to which hogs are so liable when confined in dry pens in a Southern climate. Address  
R. PETERS, Atlanta, Ga.  
Nov 55—tf



# SCOTT'S LITTLE GIANT CORN AND COB Mill Improved.



(PATENTED MAY 16, 1854.)

Manufactured of the best materials by SCOTT, MOCK-  
BEE & CO., under the immediate supervision  
of the Patentee.

**CARMICHAEL & BEAN GENERAL  
AGENTS, AUGUSTA, GA.**

THE attention of Planters and Stock Feeders is respectfully  
called to this MILL, as combining in a remarkable degree,  
portability and power, simplicity of construction and arrange-  
ment, durability, and lightness of draught.

In setting these Mills, no mechanical work is required, it being  
only necessary to fasten them down to a floor or platform, and for  
this purpose the requisite screws and a printed card of directions  
will accompany each mill.

It has been proved by actual experiment, that Stock fed on  
Corn and Cob Meal are capable of doing more work, and are less  
liable to injury from being over-heated, over-feeding and drinking,  
and will always keep in better condition than when fed on Corn  
alone; and in addition to this, it is conceded by all who have made  
the trial, that a saving of at least one-fourth is made by feeding  
Corn and Cob Meal.

**CAUTION.**—The Little Giant has always taken the first premium  
wherever exhibited; and we challenge the patentees, manufac-  
turers and agents of all other mills, to produce *proofs* of its ever  
having been equalled at any trial conducted by disinterested per-  
sons and on fair terms. It is the product of genius, experience  
and perseverance, and such has been its success, and such the  
celebrity which it has gained during the two years of its existence,  
that several imitations and counterfeits have recently made their  
appearance with the vain hope that by assuming high-sounding  
names and stealing some of the Little Giant's thunder, they may  
be able to follow in its footsteps and share its fame. These mills  
are guaranteed against defects or breakage, when used according  
to the directions and as evidence of their durability, a No. 2 Mill,  
which has ground nine thousand bushels, and a No. 3 Mill, which  
has ground fifteen thousand bushels, are still doing good service.  
The smallest size, No. 1, will grind five bushels per hour with a  
small horse, and is offered at the low price of \$35, all complete  
and ready for attaching the horse. No. 2 will grind from eight to  
ten bushels per hour with one horse, and is sold at \$50. No 3 re-  
quires two horses, will grind fifteen bushels per hour, and sells for  
\$60.

We append a few of the many certificates which we have re-  
ceived, and we have in our possession official written and printed  
testimonials which we will gladly exhibit to persons wanting  
mills, showing and proving the superiority of the Little Giant  
over all others:

## TESTIMONIALS.

AUGUSTA, GA., April 3, 1855.

I have been running one of SCOTT'S LITTLE GIANT CORN  
AND COB MILLS, No. 4, for the last five weeks, and it per-  
forms to my entire satisfaction. It was warranted to grind twenty  
bushels per hour. But I have ground over thirty-five bushels in an  
hour and a half, or equal to twenty-three and half bushels per  
hour. In feeding thirty horses I save at least one hundred bushels  
of Corn per month, it now requiring only two hundred bushels of  
Corn with the Cob, where I formerly fed three hundred. I con-  
sider it decidedly the best kind of crusher ever got up and if I  
could not replace mine, I would not sell it for five hundred dollars.

L. D. MATHEWS,

Proprietor of the Augusta Omnibuses.

AUGUSTA, GA., April 20, 1857.

Messrs. CARMICHAEL & BEAN—Gents.—After having used the  
Little Giant constantly for two years, I cheerfully confirm every  
statement made in my certificate of the 3d of April, 1855.

I. D. MATHEWS.

BEECH ISLAND, S. C., April 1, 1857.

Messrs. CARMICHAEL & BEAN, Augusta, Ga.—Gents.—I have

had a No. 3 Little Giant in constant use for the last two years,  
and have fed my stock entirely on Corn and Cob Meal. I have  
never worked my horses and mules harder than during this time,  
and they have never been in better condition than they are now.  
Two horses will grind fifteen bushels per hour easily, and I feel  
confident that I save fully 30 per cent by using the mill. I am ac-  
quainted with several kinds of crushers, but consider the Little  
Giant far superior to any I have ever seen.

Yours respectfully,

THOMAS S. MILLER.

Messrs. CARMICHAEL & BEAN—Gents.—We are using the Little  
Giant Corn and Cob Mills, which we bought from you, and here  
by recommend them to Planters and Stock Feeders as the most  
simple and durable, the most easily propelled, and best crushers  
we have ever seen, and by the use of which we believe a saving  
of one-third is made.

NATHAN CRAWFORD, Columbia county, Ga.

(Dr. Crawford has two mills in use.)

A. J. RAMBO, Edgefield District, S. C.

(Mr. Rambo has three mills at different places.)

J. PRINTUP, Warren county, Ga.

JOHN B. WHITEHEAD, Burke county, Ga.

T. J. SMITH, Hancock county, Ga.

DAVID C. BARROW, Oglethorpe county, Ga.

(Mr. Barrow has two mills.)

GEORGE SCHLEY, Augusta, Ga.

WM. J. EVE, Richmond county, Ga.

GOODE BRYAN, Richmond county, Ga.

WM. J. MIMS, Richmond county, Ga.

V. A. HATCHER, Jefferson county, Ga.

JOHN G. MERCK, Hall county, Ga.

JAMES M. HARRIS, Hancock county, Ga.

A. H. COLLINS, Columbia county, Ga.

HENRY J. SCHLEY, Burke county, Ga.

(Mr. Schley is using two mills.)

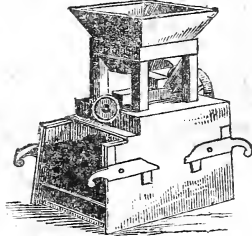
PORTER FLEMING, Augusta, Ga.

JAMES TORRYE, Lexington, Miss.

May 57—tf

## FELTON'S SELF-SHARPENING PORTABLE GRIST MILL.

PATENTED JANUARY 2, 1855.



**FELTON'S**

PATENT

**PORTABLE GRAIN MILL.**

TROY, N. Y.

FOR grinding all kinds of Grain, including Corn and Cob, and  
adapted to the use of Planters, by Horse Power.

This is one of the most valuable inventions of the day. Posses-  
sing all the qualifications requisite to make it available to the  
Planter, it is destined to supply a want that has long been felt by  
that portion of the community. It occupies a space of only two  
feet by three, and weighs about 300 lbs. It is very simple in con-  
struction,—the grinding surfaces are of the most durable charac-  
ter, and are Self-Sharpening, requiring no skill to keep in order,  
and should they ever wear out, can be replaced at a trifling cost.  
—and the price comes within the reach of every Planter and  
Farmer.

It is adapted to Steam, Water, Wind or Horse Power, and is  
capable of grinding three bushels per hour with one horse power,  
and from six to eight bushels with two horse power; it grinds suf-  
ficiently fine for family use, and does not heat the meal—a most  
valuable feature.

The perfecting of this mill is the result of a long series of ex-  
periments which have been attended with great expense, but the  
success of the enterprise is most complete. Numerous testimo-  
nials, in its favor have been received and will be cheerfully ex-  
hibited to all.

All orders for Mills, Communications, &c., will be promptly at-  
tended to, and should be addressed to the Agent.

May 57—tf

D. CHAFFEE, Augusta, Ga.

## PLANTATION IN SOUTH-WESTERN Georgia For Sale,

SITUATED on the east side of Flint River, 10 miles below Al-  
bany, the river forming the Western boundary, containing  
1,346 acres (more or less) first quality PINE LAND. Between 500  
and 600 acres are in cultivation, all of which is fresh, none of it hav-  
ing been cultivated more than 4 years. Thirty or forty acres will  
comprise all the waste land on the plantation. The improvements  
are a good Gin House, Overseer's House, Crib, Negro Houses, etc.

The ill health of the proprietor is his reason for wishing to  
sell. Apply to

S. H. HARRIS, on the Plantation, or

E. B. BALLOU, Quincy, Fla.

Possession given 1st January next.

Albany, Ga., March 27, 1857.

Aug 57—5t\*



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## DEVON AND ALDERNEY CATTLE FOR Sale.

I OFFER for sale the following thorough-bred DEVON CATTLE, viz:

## DEVONS.

3 Heifers, in calf to my bull "Springfield." (See Davy's Devon Herd Book, 2nd vol.)

1 Heifer in calf to same bull.

2 Heifer Calves and 3 Bull Calves, from same bull.

All these animals were out of Patterson cows, by Patterson bulls. Also, Bull "Springfield." (See Davy's Devon Herd Book.) Springfield gained the first prize at the Atlanta Fair, 1853, as a 2 year old.

## ALDERNEY.

1 Alderney Bull, 1 year old, out of an imported cow, and sired on the Isle of Jersey, by a 1st prize bull.

I can furnish undoubted pedigrees with all the above animals, and will deliver them at the Railroad Depot, at Athens, Ga., free of cost to the purchaser. Address GEO. H. WARING, Sept 57—tf Clarksville, Ga.

## FOR SALE.

HAVING determined to remove West, I offer for sale my RESIDENCE in the immediate vicinity of Columbus, and my PLANTATION in Russell county, Ala.

The former is a handsome and commodious building, containing ten rooms, besides basement, store and ironing rooms. The outbuildings are well arranged for comfort and convenience. Attached to the residence are twenty acres of land, in fine cultivation, with a position on the main road, sufficient for one or more building lots. The healthfulness of the locality is unsurpassed.

My Plantation is 15 miles west of Columbus, on Uchee Creek, and 5 miles from the Mobile & Girard Railroad, and contains 2,600 acres. My success in making cotton is the best criterion of its claims upon the purchaser. Being susceptible of subdivision into three or four farms, some of which have improvements, I will sell all together or in separate settlements to suit purchasers. If desirable, I will sell the growing crop with the land, arranging for the overseer to remain with the hands to gather the crop under the direction of the purchaser.

In my absence, any one wishing to see my house and lot, can apply to my neighbors, Mr. Wm. A. Redd, A. C. Flewellen, or W. E. Jones. J. R. JONES.

Columbus, Ga., June 9, 1857.—oct57—tf

## CATAWBA GRAPA CUTTINGS.

THE undersigned can supply 50,000 CUTTINGS of the genuine Catawba Grape. They will be securely packed and placed on the Railroad at Washington, Ga., at any address, at \$12 per thousand. Address JOHN L. WYNN, Dec 57—tf Mallersville, Ga.

1858!

1858!

SOUTHERN CULTIVATOR,  
A MONTHLY JOURNAL,

DEVOTED TO SOUTHERN AGRICULTURE, HORTICULTURE, STOCK BREEDING, POULTRY, BEES, GENERAL FARM ECONOMY, &c.

DANIEL LEE, M. D., and D. REDMOND, Editors.

The Sixteenth volume commences in January, 1858.

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ADDRESS WM. S. JONES, Augusta, Ga.

Persons who will act as AGENTS, and obtain SUBSCRIBERS, will be furnished with the paper at club prices.

## VINEYARDS IN THE SOUTH!!

ROOTED VINES and CUTTINGS of the CATAWBA—the great Wine Grape of the South—will be furnished by the subscriber, from Vineyards under his own direction at Montgomery, Ala., Dalton, Atlanta, Crawfordville, Washington and Augusta, Ga., and Abbeville, S. C. To insure freshness and save transportation, applicants will be furnished from Vineyards nearest to them, in all practicable cases. These Vines and Cuttings will be ready for delivery by the 1st of January, 1858, and as the supply is limited, early applications are advisable.

Purchasers will be furnished with full printed directions for planting, cultivating and pruning the vines until they come into full bearing—these directions will be so plain and explicit that any person can be sure of success. My Wine has stood the test of the best judges; it is now in market, and will rest on its own merits.

Address: CHARLES AXT, Crawfordville, Ga.

Oct57—tf

## GRAPE VINES AT IONA.

DELAWARE, Concord, Union Village, Early Hudson, Hartford Prolific, Raabes's Clara, Raabe, Elsburgur, Rebecca, Herbe-mont, Garrigues, Arkansas, York Madeira, Clinton, Emily, Minor, Catawba, Diana, To Kalon, Canby's August, Marion, Bland, Lyman, Brinckle, Mountain, Isabella, and Hyde's Eliza. Also, Strawberry, McCowan, Charter Oak, and Northern Muscadine.

A general assortment of RASPBERRY PLANTS, including Brinckle's Orange, which is the best of all Raspberries in cultivation for the market or garden. A small lot of Myatt's Linnaeus RHUBARB PLANTS, superior.

All of the above plants are offered singly, by the dozen, or to the trade. Address C. W. GRANT,

Oct57—tf Iona, near Peekskill, Westchester Co., N. Y.

## STOCK FARM FOR SALE.

I WISH to sell my STOCK FARM, situated immediately at the Depot on the Memphis & Ohio Railroad, and also on the Memphis and Somerville Plank Road, 11 miles east of Memphis, containing 610 acres; 300 acres in cultivation, the remainder finely timbered, all under a new and substantial fence. A good two-story framed Dwelling, framed Negro Houses, and Stables for 20 horses and 100 head of cattle. I am now selling from my dairy \$5 worth of milk per day. There are 15 acres well set in Fruit Trees of choice quality.

I will sell the farm together with the Crop, Stock and a few likely young Negroes, and give possession immediately, or I will sell the Farm and Dwellings next winter. Here is the best chance for a party familiar with Stock Raising and can devote his time and attention to the business, to be found in West Tennessee.

The place can be divided into 9 lots, with a beautiful building site on each, with wood, water and cleared land on each. All near and with a good road to the Depot.

If not sold privately before the 1st day of July it will, on that day, be divided and sold in lots to suit purchasers, together with my Stock, consisting of 75 head of COWS, mostly in calf by my Brahmin Bull; 20 MARES, in foal by "Nebraska," a fine stock of blood HOGS and SHEEP, together with my Brahmin BULL, Memphis, and the thorough bred young STALLION, Nebraska, sired by imported Sovereign, dam Glencoe, 4 years old.

Persons wishing to examine the premises or get further information will call on myself or G. B. Lock, at Memphis, or it will be shown by my Overseer on the place.

The Train, on the Memphis & Ohio Road leaves Memphis at 1 1/2 o'clock, A. M., and returns at 1 1/2 o'clock, P. M.

June 56—tf JAMES R. FERGUSON, Memphis, Tenn.













